DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK

CITY OF PORTLAND

BUILDING PERMIT

This is to certify that AT & T MOBILITY **Located At 25 PEARL ST**

Job ID: 2012-07-4422-ALTCOMM **CBL: 029- E-009-001**

has permission to 3 wireless antenna arrays of 4 each on rooftop with ground mounted equipment shelter
provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statues of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of the buildings and structures, and of the application on file in the department.

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise closed-in. 48 HOUR NOTICE IS REQUIRED.	A final inspection must be completed by owner before this building or part thereof is occupied. If a certificate of occupancy is required, it must be

JMB per T.M.H.

Fire Prevention Officer **Code Enforcement Officer / Plan Reviewer**

THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY
PENALTY FOR REMOVING THIS CARD

BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (ONLY)

or email: buildinginspections@portlandmaine.gov

With the issuance of this permit, the owner, builder or their designee is required to provide adequate notice to the city of Portland Inspections Services for the following inspections. Appointments must be requested 48 to 72 hours in advance of the required inspection. The inspection date will need to be confirmed by this office.

- **Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.**
- **Permits expire in 6 months. If the project is not started or ceases for 6 months.**
- **If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue.**

Footings/Setbacks prior to pouring concrete

Close In Elec/Plmb/Frame prior to insulate or gyp

Final Inspection

The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OF CIRCUMSTANCES.

IF THE PERMIT REQUIRES A CERTIFICATE OF OCCUPANCY, IT MUST BE PAID FOR AND ISSUED TO THE OWNER OR DESIGNEE BEFORE THE SPACE MAY BE OCCUPIED.

Job ID: 2012-07-4422-ALTCOMM **Located At:** 25 PEARL ST **CBL:** 029- E-009-001

Conditions of Approval:

Fire

1. Installation shall comply with City Code Chapter 10.

Building

1. Special inspections are required for the anchoring of the pole.
2. A statement from the design professional indicating compliance is required to be submitted at the completion of this installation.

City of Portland, Maine - Building or Use Permit Application
389 Congress Street, 04101 Tel: (207) 874-8703, FAX: (207) 8716

Job No:	Date Applied:	CBL:	
2012-07-4422-ALTCOMM	**7/9/2012**	**029- E-009-001**	
Location of Construction: **25 PEARL ST**	Owner Name: **25 PEARL MHR LLC**	Owner Address: **PO BOX 7488 PORTLAND, ME 04112**	Phone:
Business Name:	Contractor Name: **At&t Mobility c/o SAI Communications – Peter Cooke**	Contractor Address: **22 Keewaydin Drive, Salem NH 03079**	Phone: **(978) 399-8600**
Lessee/Buyer's Name:	Phone:	Permit Type: **BLDG**	Zone: **B-3**
Past Use: **Garage with offices above**	Proposed Use: **Same: Garage with offices above – installation of three wireless antenna arrays of four antenna each on rooftop –with ground mounted equipment shelter**	Cost of Work: **$90,000.00**	CEO District:
		Fire Dept: 8/2/12 ✓ Approved w/ conditions ___ Denied ___ N/A Signature: Bjandolf (58)	Inspection: Use Group: U Type: Towers IBC 09 Signature:
Proposed Project Description: **Installation of rooftop antennas**		Pedestrian Activities District (P.A.D.)	
Permit Taken By: Gayle			

1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.
2. Building Permits do not include plumbing, septic or electrial work.
3. Building permits are void if work is not started within six (6) months of the date of issuance. False informatin may invalidate a building permit and stop all work.

Zoning Approval

Special Zone or Reviews	Zoning Appeal	Historic Preservation
___ Shoreland	___ Variance	✓ Not in Dist or Landmark
___ Wetlands	___ Miscellaneous	___ Does not Require Review
___ Flood Zone	___ Conditional Use	___ Requires Review
___ Subdivision	___ Interpretation	___ Approved
___ Site Plan	___ Approved	___ Approved w/Conditions
___ Maj ___ Min ___ MM	___ Denied	___ Denied
Date: OK 7/12/12	Date:	Date:

CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the appication is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT ADDRESS DATE PHONE

RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE DATE PHONE

will email 208

2012-07-4422 60

General Building Permit Application 13-3

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: 25 PEARL STREET		
Total Square Footage of Proposed Structure/Area: 11'6" x 20' SHELTER	Square Footage of Lot: .841 A	
Tax Assessor's Chart, Block & Lot — Chart# 29 Block# E Lot# 9001	Applicant *must be owner, Lessee or Buyer*: Name AT+T MOBILITY c/o SAI COMMUNICATIONS; Address 22 KEEWAYDIN DRIVE; City, State & Zip SALEM NH 03079	Telephone: PETER COOKE 978-399-8600
Lessee/DBA (If Applicable): AT+T MOBILITY c/o SAI COMMUNICATIONS 22 KEEWAYDIN DR SALEM NH 03079	Owner (if different from Applicant): Name 25 PEARL MHR LLC; Address POB 7483; City, State & Zip PORTLAND ME 04112	Cost Of Work: $ 90000; C of O Fee: $; Total Fee: $

Current legal use (i.e. single family): GARAGE
If vacant, what was the previous use? —
Proposed Specific use: WIRELESS COMMUNICATIONS FACILITY
Is property part of a subdivision? NO If yes, please name
Project description: INSTALLATION OF THREE WIRELESS ANTENNA ARRAYS OF FOUR ANTENNAS EACH ON BUILDING ROOFTOP, GROUND MOUNTED EQUIPMENT SHELTER AND ASSOCIATED CABLING AND UTILITIES

Contractor's name: SAI COMMUNICATIONS
Address: 22 KEEWAYDIN DR
City, State & Zip SALEM NH 03079 Telephone: 774-766-1474 TOBY SLAGLE
Who should we contact when the permit is ready: PETER COOKE Telephone: 978-399-8600 PETER COOKE
Mailing address: POB 894 WOLFEBORO NH 03894

Please submit all of the information outlined on the applicable Checklist. Failure to do so will result in the automatic denial of your permit.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at www.portlandmaine.gov, or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

Signature: agent for SAI/AT+T mobility Date: 7/9/12

This is not a permit; you may not commence ANY work until the permit is issue

RECEIVED
JUL 09 2012
Dept. of Building Inspections
City of Portland Maine

Administrative Authorization Decision

Name: AT &T Mobility Wireless New Site Installation
Address: 25 Pearl Street
Project Description:

Criteria for an Adminstrative Authorizations: Section 14-523 (4) on page 2 of this application)	Applicant's Assessment Y(yes), N(no), N/A	Planning Division Use Only
a) Is the proposal within existing structures?	No	No
b) Are there any new buildings, additions, or demolitions?	Yes	Yes , 3 antennas and equipment
c) Is the footprint increase less than 500 sq. ft.?	Yes	Yes
d) Are there any new curb cuts, driveways or parking areas?	No	No
e) Are the curbs and sidewalks in sound condition?	Yes	Yes
f) Do the curbs and sidewalks comply with ADA?	Yes	Yes
g) Is there any additional parking?	No	No
h) Is there an increase in traffic?	No	No
i) Are there any known stormwater problems?	No	No
j) Does sufficient property screening exist?	Yes	Yes
k) Are there adequate utilities?	Yes	Yes
l) Are there any zoning violations?	No	No
m)Is an emergency generator located to minimize noise?	N/A	Yes
n) Are there any noise, vibration, glare, fumes or other impacts?	No	No

I confirmed with Deb Andrews, Historic Preservation Manager, that the proposed site is outside of the Historic District and does not require Historic Preservation Review.

The Administrative Authorization for wireless site installation was approved by Barbara Barhydt, Development Review Services Manager on June 29, 2012 with the following condition(s) of approval listed below:

1. The noise attenuation as proposed shall be installed to minimize noise levels.
2. The emergency generator will be tested during normal business hours of 9 to 5 during the week, Monday through Friday.
3. The applicant shall obtain all required City Permits, including building permits from the Inspection Division (874-8703) and any other permits required from the Department of Public Services (874-8801) prior to the start of any construction.

Barbara Barhydt
Development Review Services Manager
Date of Approval:

Dewberry

Dewberry Engineers Inc.
280 Summer Street, 10th Floor
Boston, MA 02210-1131
617.695.3400
617.695.3310 fax
www.dewberry.com

June 5, 2012

Gin Vilante
Wellman Associates, Inc.
70 Broadway Street
P.O. Box 738
Westford, MA 01886

Re: ME2976 – Custom House Garage
25 Pearl Street
Portland, ME

Dear Ms. Vilante,

AT&T Mobility has proposed to install twelve (12) antennas, each weighing approximately 41 lbs., on the building facade at the above referenced address. The existing structure is an 8 story parking structure. The antennas shall be placed on the brick penthouse, brick building façade, and CMU rear exterior wall.

Dewberry Engineers have reviewed the existing site conditions and have concluded the building appears to be in good condition and able to accommodate the proposed installation. Additionally, Dewberry has performed antenna mounting calculations to confirm the capacity of the proposed anchorage detail. These mounting details and specifications are included in Rev 0 Construction Drawings dated 06/05/12.

Our evaluation is based on the assumption that construction is performed in accordance with all applicable state and local building codes. If during construction any damage or hidden conditions are noticed, Dewberry is to be notified to assess any deviation from the assumed condition.

If you have any questions, please do not hesitate to call me at 617-531-0784.

Sincerely,
Dewberry Engineers, Inc.

Brad A. Mills, P.E.
Associate Vice President

Dewberry
Structural Calculation Summary Sheet

Job No:	50003936/50041016	**By:** SMC	**Date:** 05/30/2012
Job Name:	ME2976 – Custom House Garage	**Chkd:** DWK	**Date:** 5/31/2012

Location: 25 Pearl Street, Portland, ME
Client: AT&T

Site Inspection/Photos/Other Data provided by: Damian Schmalz

Brief Description:
1. Proposed placement of twelve (12) antennas on the existing building facade.
2. Existing building is an 8 story parking structure.
3. Reference plans are not available.
4. Information for analysis from site visit on 5/4/2012.

Basic Criteria:
1. ASCE 7-10.
2. AISC 13th Ed.
3. ME State Building Code/IBC

Design Summary:
1. Design and analysis of antenna mount anchor bolts based on wind load and dead load, design checks for normal bending stresses and shear.
2. By inspection, the existing building's structural elements have sufficient structural capacity to support the proposed equipment as shown on the plans.

HIT HY 20 Allowable Loads for Threaded HIT-A Rods in Hollow Concrete Block, Lightweight Concrete Block, Brick with Holes, Clay Tile[1,2]

Anchor Type	Anchor Diameter in. (mm)	HIT-A Short 2" (51mm) Embedment		HIT-A Standard 3-3/8" (86mm) Embedment			
		L/W or N/W Hollow Concrete Block		Brick with Holes		Clay Tile	
		Tension lb (kN)	Shear lb (kN)	Tension lb (kN)	Shear lb (kN)	Tension lb (kN)	Shear lb (kN)
HIT-A Rod Anchor	1/4[3] (6.4)[3]	255 (1.1)	340 (1.5)	365 (1.6)	305 (1.4)	130 (0.6)	100 (0.4)
	5/16 (7.9)	370 (1.6)	505 (2.2)	585 (2.5)	530 (2.4)	150 (0.7)	220 (1.0)
	3/8 (9.5)	525 (2.3)	790 (3.5)	775 (3.4)	930 (4.1)	150 (0.7)	220 (2.2)
	1/2 (12.7)	525 (2.3)	1230 (5.5)	775 (3.4)	1375 (6.1)	150 (0.7)	500 (2.2)

1 Based on using a safety factor of 6 for tension and 4 for shear.

2 Due to wide strength variations encountered in masonry, these values should be considered as guide values.

3 1/4" anchor diameter installed at 2" embedment in brick with holes and clay tile.

HIT HY 20 Allowable Loads for Threaded HIT-I Inserts in Hollow Concrete Block, Lightweight Concrete Block, Brick with Holes, Clay Tile[1,2]

Anchor Type	Anchor Diameter in. (mm)	HIT Short 2" (51mm) Embedment		HIT Standard 3-3/8" (86mm) Embedment			
		L/W or N/W Hollow Concrete Block		Brick with Holes		Clay Tile	
		Tension lb (kN)	Shear lb (kN)	Tension lb (kN)	Shear lb (kN)	Tension lb (kN)	Shear lb (kN)
HIT-I Insert Anchor	for 1/4 screw w/ insert[3] (6.4)	240 (1.1)	510 (2.3)	300 (1.3)	530 (2.4)	85 (0.4)	150 (0.7)
	5/16 (7.9)	400 (1.8)	780 (3.5)	585 (2.6)	750 (3.3)	175 (0.8)	220 (1.0)
	3/8 (9.5)	400 (1.8)	1425 (6.3)	1160 (5.2)	1380 (6.1)	185 (0.8)	435 (1.9)
	1/2 (12.7)	400 (1.8)	1800 (8.0)	1160 (5.2)	1635 (7.3)	185 (0.8)	500 (2.2)

1 Based on using a safety factor of 6 for tension and 4 for shear.

2 Due to wide strength variations encountered in masonry, these values should be considered as guide values.

3 1/4" anchor installed at 2" embedment in brick with holes and clay tile.

Anchor Spacing and Edge Distance Guidelines

Brick with Holes & Multi-Wythe Brick Walls

Spacing:

$s_{cr} = s_{min}$ = Two (2) complete bricks in any direction

Edge Distance:

$c_{cr} = c_{min}$ = Two (2) complete bricks, or 16" (406 mm) in any direction (whichever is less.)

Clay Tile

Spacing:

$s_{cr} = s_{min}$ = One (1) anchor per tile cell

Edge Distance:

$c_{cr} = c_{min}$ = 12" (305 mm) from free edge

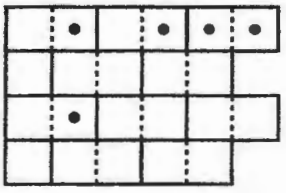
Hollow, Normal Weight & Lightweight Concrete Block

Spacing:

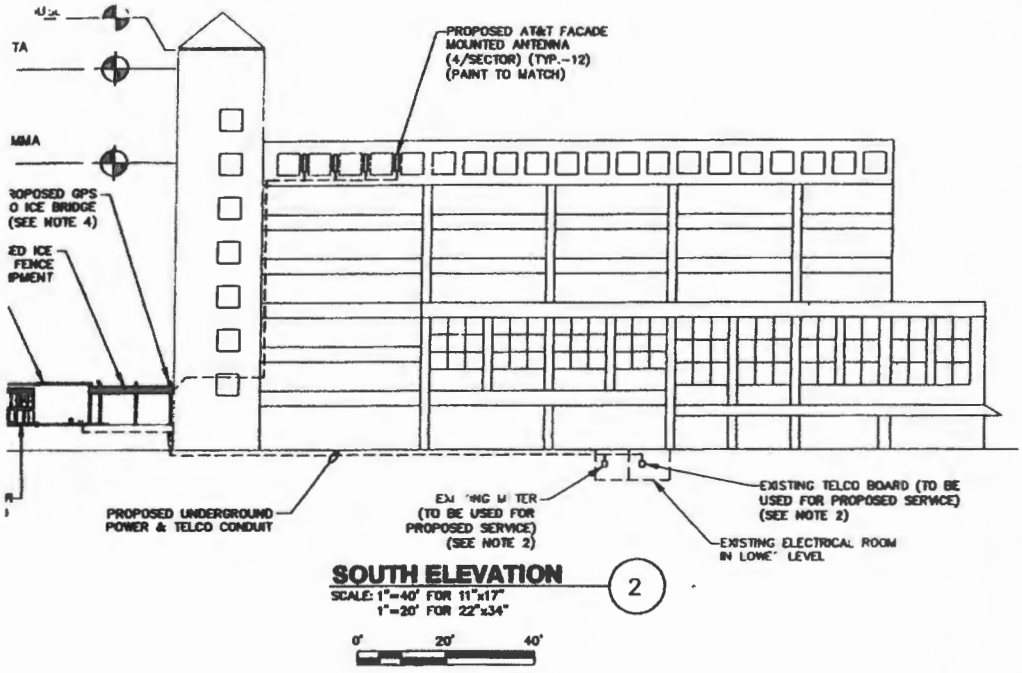
$s_{cr} = s_{min}$ = One (1) anchor per block cell

Edge Distance:

$c_{cr} = c_{min}$ = 12" (305 mm) min. from free edge



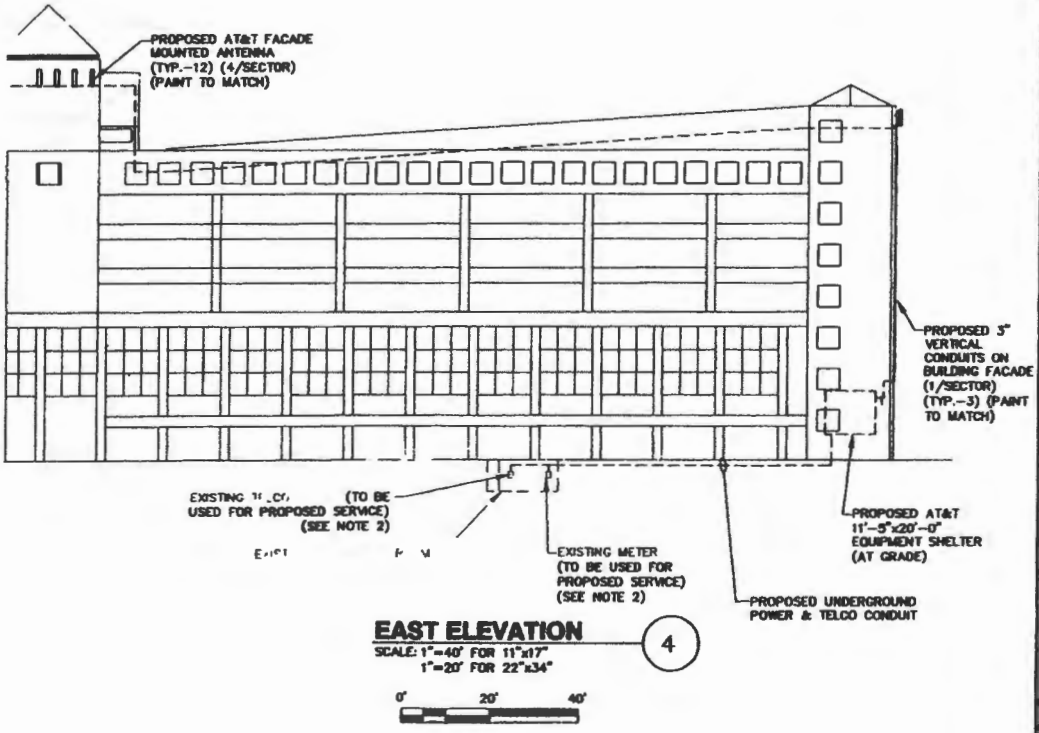
Wall Elevation



SOUTH ELEVATION 2

SCALE: 1"=40' FOR 11"x17"
1"=20' FOR 22"x34"

0' 20' 40'



EAST ELEVATION 4

SCALE: 1"=40' FOR 11"x17"
1"=20' FOR 22"x34"

0' 20' 40'

at&t Mobility
550 COCHITUATE ROAD
SUITES 13 & 14
FRAMINGHAM, MA 01701

CUSTOM HOUSE GARAGE
SITE NO.: ME2976

SAI communications
22 KEEWAYDIN DRIVE
SALEM, NH 03079

CONSTRUCTION DRAWINGS		
0	05/17/12	FOR CONSTRUCTION
A	04/06/11	FOR COMMENT

Dewberry
Dewberry Engineers, Inc.
200 SUMMER STREET
10TH FLOOR
BOSTON, MA 02210
PHONE: 617.695.3400
FAX: 617.695.3310

DRAWN BY:	JM
REVIEWED BY:	DAS
CHECKED BY:	PPB
PROJECT NUMBER:	50003936
JOB NUMBER:	50041016
SITE ADDRESS	

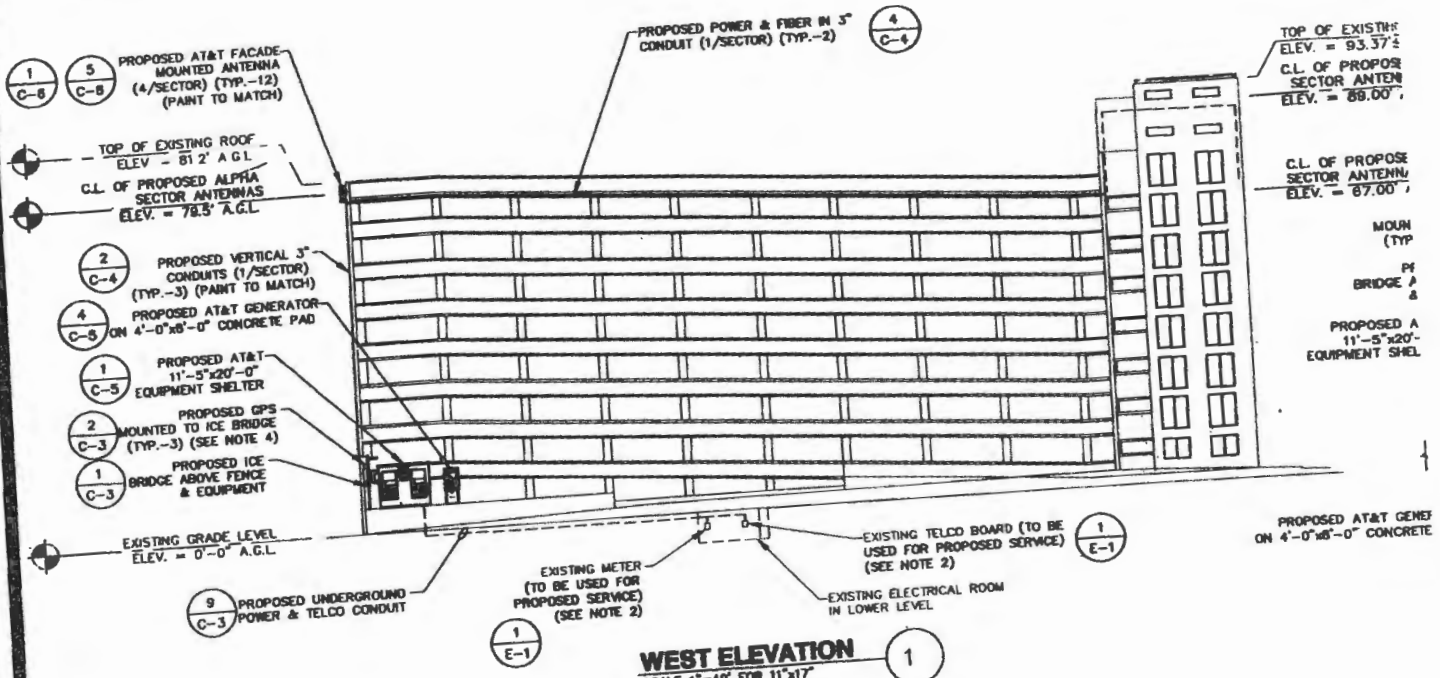
25 PEARL STREET
PORTLAND, ME 04101

SHEET TITLE

ELEVATIONS

SHEET NUMBER

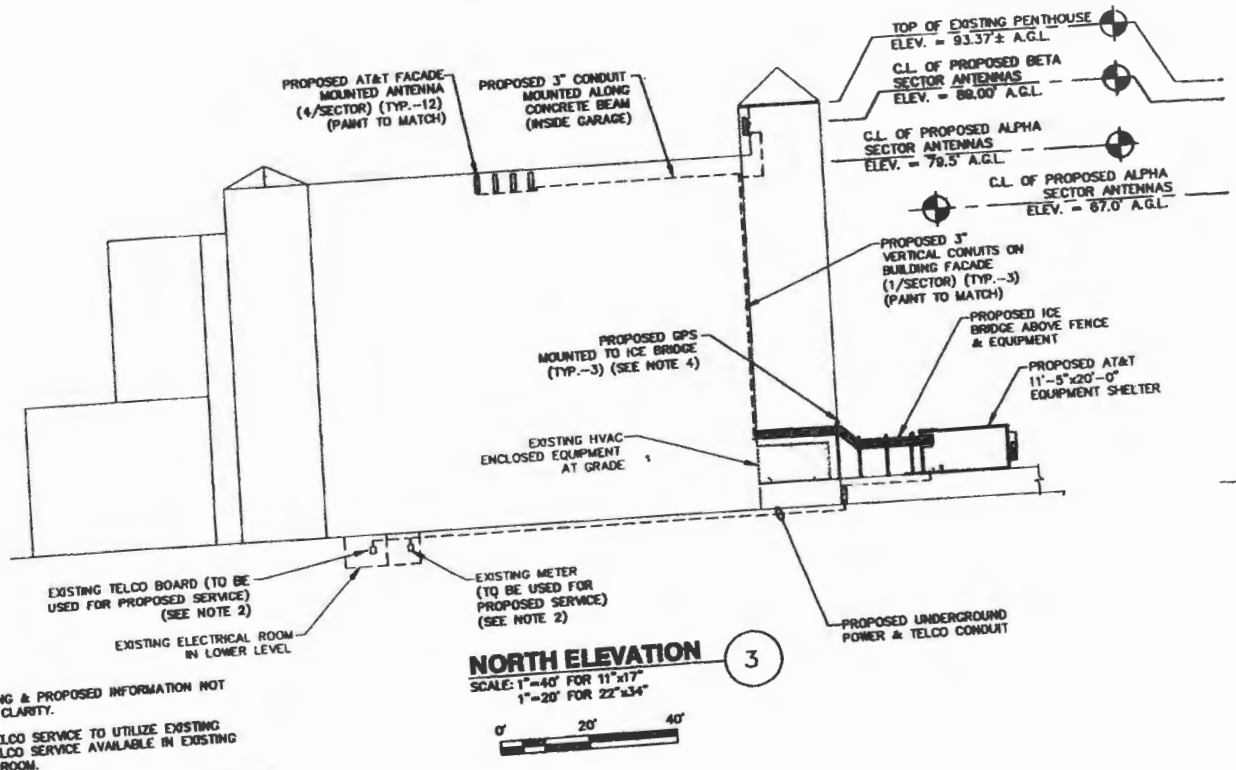
C-2



WEST ELEVATION 1

SCALE: 1"=40' FOR 11"x17"
1"=20' FOR 22"x34"

0' 20' 40'



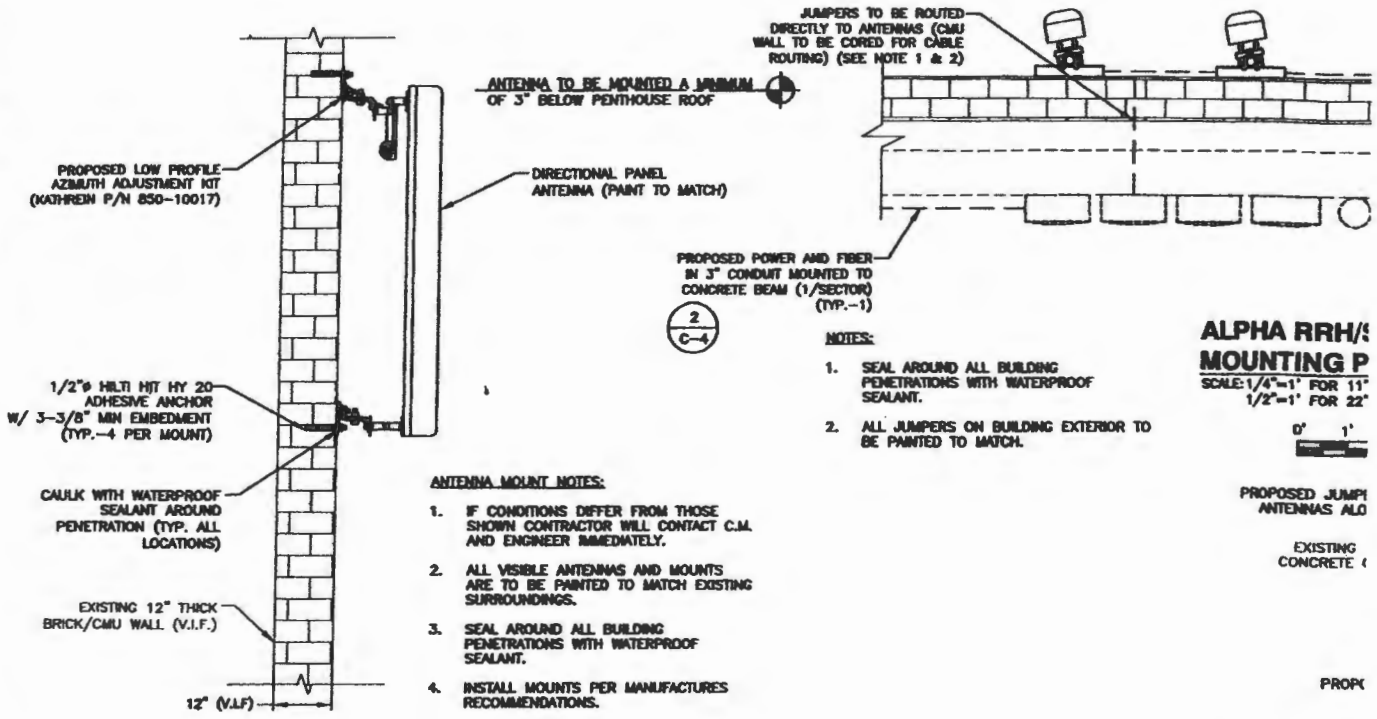
NORTH ELEVATION 3

SCALE: 1"=40' FOR 11"x17"
1"=20' FOR 22"x34"

0' 20' 40'

NOTES:

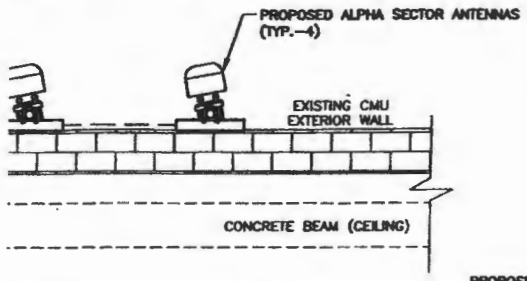
1. SOME EXISTING & PROPOSED INFORMATION NOT SHOWN FOR CLARITY.
2. POWER & TELCO SERVICE TO UTILIZE EXISTING METER & TELCO SERVICE AVAILABLE IN EXISTING ELECTRICAL ROOM.
3. ELEVATION BASED ON PLANS PREPARED BY DESMAN PARKING ASSOCIATES, DATED 12/15/88.
4. GPS UNITS TO BE MOUNTED A MINIMUM OF 10' HORIZONTALLY FROM EACH OTHER.
5. CONTRACTOR TO CONFIRM LOCATION OF ANY REBAR OR POST TENSION CABLES WHEN CORING OR DRILLING INTO EXISTING CONCRETE.



FACADE MOUNT ANTENNA SECTION (1)
SCALE: N.T.S.

ANTENNA AND COAXIAL CABLE BILL OF MATERIALS											
SECTOR	STATUS	COLOR CODE	ANTENNA	COAX CABLE FEED LOC	AZIMUTH (TRUE NORTH)	RAD CENTER	CABLE LENGTH	CABLE	MECHANICAL DOWNTILT	RRU	DIPLEXER
IA	PROPOSED	IR & IR	POWERWAVE P65-15-XLH-RR	BOTTOM	TBD	79.5'	2 @ 155'	FIBER	0°	(1) ERICSSON RRUS-11	–
IIA	PROPOSED	IIR & IVR	POWERWAVE P65-15-XLH-RR	BOTTOM	TBD	79.5'	–	FIBER	0°	(1) ERICSSON RRUS-11	–
IIIA	PROPOSED	VR & VIR	POWERWAVE P65-15-XLH-RR	BOTTOM	TBD	79.5'	–	FIBER	0°	(1) ERICSSON RRUS-11	–
IIIA	PROPOSED	VR & VIR	POWERWAVE P65-15-XLH-RR	BOTTOM	TBD	79.5'	–	FIBER	0°	(1) ERICSSON RRUS-11	–
IB	PROPOSED	IB & IIB	POWERWAVE P65-15-XLH-RR	BOTTOM	TBD	89.0'	2 @ 341'	FIBER	0°	(1) ERICSSON RRUS-11	–
IIB	PROPOSED	IIIB & IVB	POWERWAVE P65-15-XLH-RR	BOTTOM	TBD	89.0'	–	FIBER	0°	(1) ERICSSON RRUS-11	–
IIIB	PROPOSED	VB & VIB	POWERWAVE P65-15-XLH-RR	BOTTOM	TBD	89.0'	–	FIBER	0°	(1) ERICSSON RRUS-11	–
IIIB	PROPOSED	VB & VIB	POWERWAVE P65-15-XLH-RR	BOTTOM	TBD	89.0'	–	FIBER	0°	(1) ERICSSON RRUS-11	–
IG	PROPOSED	IG & IIG	POWERWAVE P65-15-XLH-RR	BOTTOM	TBD	67.0'	2 @ 387'	FIBER	0°	(1) ERICSSON RRUS-11	–
IIG	PROPOSED	IIG & IVG	POWERWAVE P65-15-XLH-RR	BOTTOM	TBD	67.0'	–	FIBER	0°	(1) ERICSSON RRUS-11	–
IIIG	PROPOSED	VG & VIG	POWERWAVE P65-15-XLH-RR	BOTTOM	TBD	67.0'	–	FIBER	0°	(1) ERICSSON RRUS-11	–
IIIG	PROPOSED	VG & VIG	POWERWAVE P65-15-XLH-RR	BOTTOM	TBD	67.0'	–	FIBER	0°	(1) ERICSSON RRUS-11	–
TOTAL QUAN.	–	–	12	–	–	–	1,766'	–	–	12	–

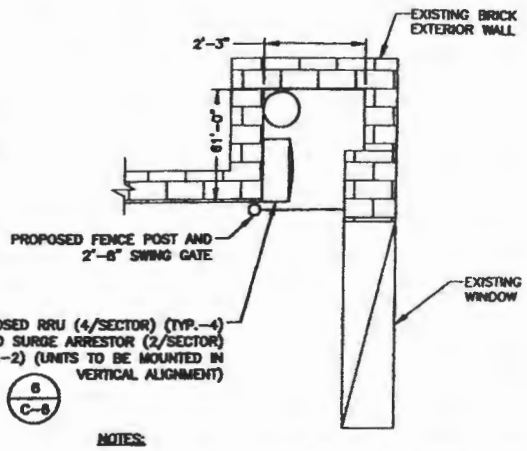
ANTENNA AND COAXIAL CABLE B.O.M. (5)
SCALE: N.T.S.



GE

2

4'



NOTES:

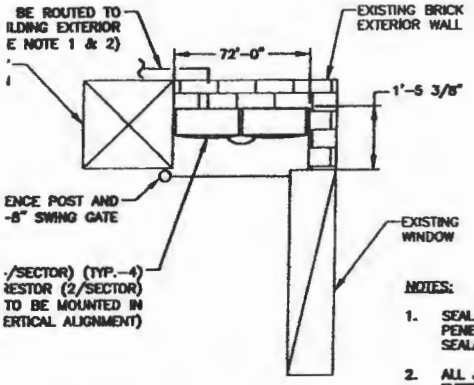
1. SEAL AROUND ALL BUILDING PENETRATIONS WITH WATERPROOF SEALANT.
2. ALL JUMPERS ON BUILDING EXTERIOR TO BE PAINTED TO MATCH.

BETA RRH/SURGE MOUNTING PLAN

3

SCALE: 1/4"=1' FOR 11"x17"
1/2"=1' FOR 22"x34"

0' 1' 2' 4'



NOTES:

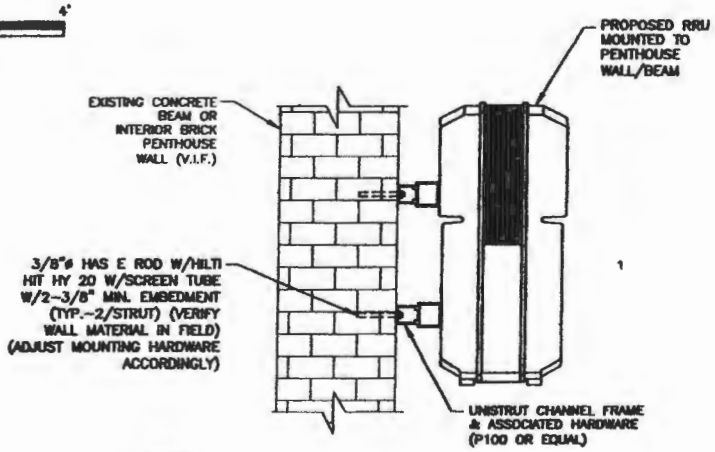
1. SEAL AROUND ALL BUILDING PENETRATIONS WITH WATERPROOF SEALANT.
2. ALL JUMPERS ON BUILDING EXTERIOR TO BE PAINTED TO MATCH.

GAMMA RRH/SURGE MOUNTING PLAN

4

SCALE: 1/4"=1' FOR 11"x17"
1/2"=1' FOR 22"x34"

0' 1' 2' 4'



NOTES:

1. CONTRACTOR TO SEAL & WEATHERPROOF ALL PENETRATIONS.
2. INSTALL RRU'S PER MANUFACTURES RECOMMENDATIONS.
3. CONTRACTOR SHALL VERIFY EXISTING CONDITION AND DEPTH OF EMBEDMENT AVAILABLE.
4. MOUNTING TYPICAL FOR SURGE ARRESTOR. MOUNT ACCORDING TO MANUFACTURER SPECIFICATIONS

TYPICAL RRU MOUNTING DETAIL

6

SCALE: N.T.S.

at&t Mobility
550 COCHITUATE ROAD
SUITES 13 & 14
FRAMINGHAM, MA 01701

CUSTOM HOUSE GARAGE
SITE NO.: ME2976

SAI communications
22 KEEWAYDIN DRIVE
SALEM, NH 03079

CONSTRUCTION DRAWINGS		
0	06/05/12	FOR CONSTRUCTION
A	04/06/11	FOR COMMENT

Dewberry
Dewberry Engineers, Inc.
260 SUMMER STREET
10TH FLOOR
BOSTON, MA 02210
PHONE: 617.695.3400
FAX: 617.695.3510

DRAWN BY:	JM
REVIEWED BY:	DAS
CHECKED BY:	PPB
PROJECT NUMBER:	50003936
JOB NUMBER:	50041016
SITE ADDRESS	

25 PEARL STREET
PORTLAND, ME 04101

SHEET TITLE

ANTENNA B.O.M. & ANTENNA DETAILS

SHEET NUMBER

C-6

Dewberry

Calculation Shee

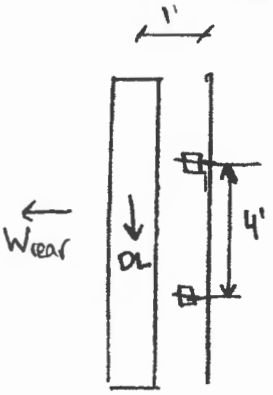
Designer SMC Date 5/30/2012 Checker DWR Date 5/31/12
Title 50041011(e) 50003936 Job No.
Subject CUSTOM HOUSE GARAGE Sheet No. of

ATT FACADE MOUNTED ANTENNA CHECK - Anchors

WIND LOAD

- MAX REAR WIND 466 N @ 94 MPH

$\frac{466N}{x} = \frac{(94\ MPH)^2}{(110\ MPH)^2}$ (ASCE-7-10) $\quad x = 638.14\ N \div 9.81\ m/s^2 \times 2.2\ lb/kg = 143.1\ lb$



DEAD LOAD = 30 lbs (PER ANTENNA SPEC SHEET)
ASSUME 100 lbs W/ CONNECTIONS, CONSERVATIVE

$T = \frac{W_{rear}}{4} + \frac{DL(1')}{2(4')} = \frac{143.1}{4} + \frac{100 \times 1'}{2 \times 4'} = 48.3\ lb$

$V = \frac{100\ lb}{4} = 25\ lb$

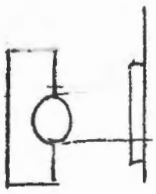
F.S. > 1.0 ✓

$\frac{V}{1375} + \frac{T}{775} \leq 1.0 \Rightarrow \frac{25}{1375} + \frac{48.3}{775} = 0.081 \leq 1$ ✓

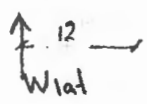
- MAX LATERAL = 195 lb @ 94 MPH

$\frac{195\ N}{x} = \frac{(94\ MPH)^2}{(110\ MPH)^2} \quad x = 267.0\ N \div 9.81\ m/s^2 \times 2.2\ lb/kg = 59.9\ lb$

W_{lat} 60 lb



$V = \frac{W_{lat}}{4} + \frac{DL}{4} = \frac{60}{4} + \frac{100}{4} = 40\ lb$



$T = \frac{W(12")}{2(8")} = \frac{60 \times 12}{2 \times 8} = 45\ lb$

F.S. > 1.0 ✓

$\frac{V}{1375} + \frac{T}{775} \leq 1.0 \Rightarrow \frac{40}{1375} + \frac{45}{775} = 0.09 \leq 1.0$ ✓

PORTLAND MAINE

Strengthening a Remarkable City, Building a Community for Life • *www.portlandmaine.gov*

Receipts Details:

Tender Information: Check , BusinessName: Div. Site Aquistion Inc, Check Number: 36652
Tender Amount: 920.00

Receipt Header:

Cashier Id: gguertin
Receipt Date: 7/9/2012
Receipt Number: 45774

Receipt Details:

Referance ID:	7194	Fee Type:	BP-Constr
Receipt Number:	0	Payment Date:	
Transaction Amount:	920.00	Charge Amount:	920.00
Job ID: Job ID: 2012-07-4422-ALTCOMM - Installation of rooftop antennas			
Additional Comments: 25 Pearl St., Peter Cooke			

Thank You for your Payment!

Administrative Authorization Application

Portland, Maine

Planning and Urban Development Department, Planning Division

PROJECT NAME: AT&T MOBILITY WIRELESS NEW SITE INSTALLLATION

PROJECT ADDRESS: 25 Pearl Street **CHART/BLOCK/LOT:** 029 E009001

APPLICATION FEE: $50.00 **($50.00)**

PROJECT DESCRIPTION: (Please Attach Sketch/Plan of the Proposal/Development)

Installation of 3 Additional Antennas and associated equipment to existing facility

CONTACT INFORMATION:

OWNER/APPLICANT		**CONSULTANT/AGENT**	
Name:	AT&T Mobility	**Name:**	Peter Cooke
Address:	c/o SAI Communications	**Address:**	POB 874
	22 Keewaydin Dr		Wolfeboro, NH 03894
Work #:	Salem, NH	**Work #:**	978-399-8600
Cell #:	(603) 531-9230	**Cell #:**	978-399-8600
Fax #:	ATT: Toby Slagle	**Fax #:**	
Home #:		**Home #:**	
E-mail:	Toby.Slagle@SAI-Comm.com	**E-mail:**	pcooke@wellmanassociates.net

Criteria for an Administrative Authorization: (see section 14-523(4) on pg .2 of this appl.)	**Applicant's Assessment Y(yes), N(no), N/A**	**Planning Division Y(yes), N(no), N/A**
a) Is the proposal within existing structures?	No	
b) Are there any new buildings, additions, or demolitions?	Yes	
c) Is the footprint increase less than 500 sq. ft.?	Yes	
d) Are there any new curb cuts, driveways or parking areas?	No	
e) Are the curbs and sidewalks in sound condition?	Yes	
f) Do the curbs and sidewalks comply with ADA?	Yes	
g) Is there any additional parking?	No	
h) Is there an increase in traffic?	No	
i) Are there any known stormwater problems?	No	
j) Does sufficient property screening exist?	Yes	
k) Are there adequate utilities?	Yes	
l) Are there any zoning violations?	No	
m) Is an emergency generator located to minimize noise?	N/A	
n) Are there any noise, vibration, glare, fumes or other impacts?	No	

Signature of Applicant:	**Date:**
	6/12/12

RECEIVED

JUN 12 2012

City of Portland
Planning Division

Planning Division Use Only Authorization Granted ____ Partial Exemption ____ Exemption Denied ____

Standard Condition of Approval: The applicant shall obtain all required City Permits, including building permits from the Inspection Division (Room 315, City Hall (874-8703)) prior to the start of any construction.

Planner Signature _____ Date _____

IMPORTANT NOTICE TO APPLICANT: The granting of an Administrative Authorization to exempt a development from site plan review does not exempt this proposal from other required approvals or permits, nor is it an authorization for construction. You should first check with the Building Inspections Office, Room 315, City Hall (207)874-8703, to determine what other City permits, such as a building permit, will be required.

PROVISION OF PORTLAND CITY CODE
14-523 (SITE PLAN ORDINANCE)
RE: Administrative Authorization

Sec. 14-523 (b). Applicability
No person shall undertake any development identified in Section 14-523 without obtaining a site plan improvement permit under this article. (c) Administrative Authorization. Administrative Authorization means the Planning Authority may grant administrative authorization to exempt a development proposal from complete or partial site plan review that meets the standards below, as demonstrated by the applicant.

1. The proposed development will be located within existing structures, and there will be no new buildings, demolitions, or building additions other than those permitted by subsection b of this section;
2. Any building addition shall have a new building footprint expansion of less than five hundred (500) square feet;
3. The proposed site plan does not add any new curb cuts, driveways, or parking areas; the existing site has no more than one (1) curb cut and will not disrupt the circulation flows and parking on-site; and there will be no drive-through services provided;
4. The curbs and sidewalks adjacent to the lot are complete and in sound condition, as determined by the public works authority, with granite curb with at least four (4) inch reveal, and sidewalks are in good repair with uniform material and level surface and meet accessibility requirements of the Americans with Disabilities Act;
5. The use does not require additional or reduce existing parking, either on or off the site, and the project does not significantly increase traffic generation;
6. There are no known stormwater impacts from the proposed use or any existing deficient conditions of stormwater management on the site;
7. There are no evident deficiencies in existing screening from adjoining properties; and
8. Existing utility connections are adequate to serve the proposed development and there will be no disturbance to or improvements within the public right-of-way.
9. There are no current zoning violations;
10. Any emergency generators are to be located to minimize noise impacts to adjoining properties and documentation that routine testing of the generators occur on weekdays between the hours of 9 a.m. to 5 p.m. Documentation pertaining to the noise impacts of the emergency generator shall be submitted; and
11. There is no anticipated noise, vibration, glare, fumes or other foreseeable impacts associated with the project.

a. **Filing the Application.** An applicant seeking an administrative authorization under this subsection shall submit an administrative authorization application for review, detailing the site plan with dimensions of proposed improvements and distances from all property lines, and stating that the proposal meets all of the provisions in standards 1-11 of Section 14-423 (b)1. **The application must be accompanied by an application fee of $50.**
b. **Review.** Upon receipt of such a complete application, the Planning Authority will process it and render a written decision of approval, approval with conditions or denial, with all associated findings.
c. **Decision.** If a full administrative authorization is granted, the application shall be approved without further review under this article, and no performance guarantee shall be required. In the event that the Planning Authority determines that standards a and b of Section 14-523 (b) (1) and at least four (4) of the remaining standards have been met, the Planning Authority shall review the site plan according to all applicable review standards of Section 14-526 that are affected by the standards in this subsection that have not been met. If an exemption or partial exemption from site plan review is not granted, the applicant must submit a site plan application that will undergo a full review by the Planning Board or Planning Authority according to the standards of Section 14-526.

Administrative Authorization Decision

Name: AT &T Mobility Wireless New Site Installation
Address: 25 Pearl Street
Project Description:

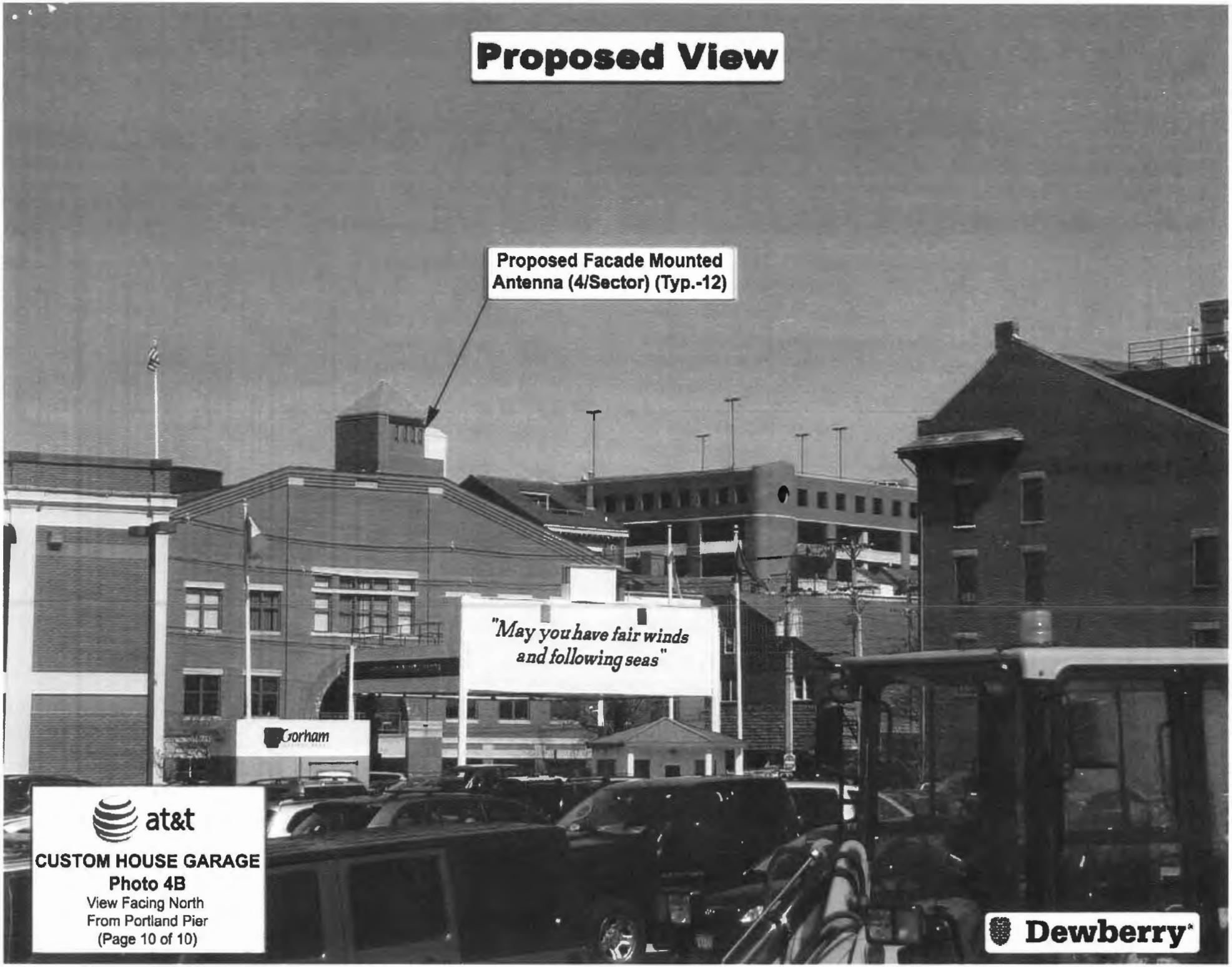
Criteria for an Adminstrative Authorizations: Section 14-523 (4) on page 2 of this application)	**Applicant's Assessment Y(yes), N(no), N/A**	**Planning Division Use Only** (See
a) Is the proposal within existing structures?	No	No
b) Are there any new buildings, additions, or demolitions?	Yes	Yes , 3 antennas and equipment
c) Is the footprint increase less than 500 sq. ft.?	Yes	Yes
d) Are there any new curb cuts, driveways or parking areas?	No	No
e) Are the curbs and sidewalks in sound condition?	Yes	Yes
f) Do the curbs and sidewalks comply with ADA?	Yes	Yes
g) Is there any additional parking?	No	No
h) Is there an increase in traffic?	No	No
i) Are there any known stormwater problems?	No	No
j) Does sufficient property screening exist?	Yes	Yes
k) Are there adequate utilities?	Yes	Yes
l) Are there any zoning violations?	No	No
m)Is an emergency generator located to minimize noise?	N/A	Yes
n) Are there any noise, vibration, glare, fumes or other impacts?	No	No

I confirmed with Deb Andrews, Historic Preservation Manager, that the proposed site is outside of the Historic District and does not require Historic Preservation Review.

The Administrative Authorization for wireless site installation was approved by Barbara Barhydt, Development Review Services Manager on June 29, 2012 with the following condition(s) of approval listed below:

1. The noise attenuation as proposed shall be installed to minimize noise levels.
2. The emergency generator will be tested during normal business hours of 9 to 5 during the week, Monday through Friday.
3. The applicant shall obtain all required City Permits, including building permits from the Inspection Division (874-8703) and any other permits required from the Department of Public Services (874-8801) prior to the start of any construction.

Barbara Barhydt
Development Review Services Manager
Date of Approval:


Proposed View
Proposed Facade Mounted Antenna (4/Sector) (Typ.-12)
"May you have fair winds and following seas"
Gorham
at&t
CUSTOM HOUSE GARAGE
Photo 4B
View Facing North
From Portland Pier
(Page 10 of 10)
Dewberry

Barbara Barhydt - Re: AT&T Mobility Proposed Installation at 25 Pearl Street

From: Peter Cooke <pcooke@wellmanassociates.net>
To: Barbara Barhydt <BAB@portlandmaine.gov>
Date: Tuesday, June 26, 2012 11:31 AM
Subject: Re: AT&T Mobility Proposed Installation at 25 Pearl Street
Attachments: Generac 50KW Diesel Generator Specifications 2011.pdf

Thanks Barbara

Genset specs attached – last page has noise levels. AT&T uses the sound enclosure so 71 dB at 23 feet away.

We plan to head to the Building Dept next – they like to see your review as part of the application. We also wanted to include any modifications you may request as part of the plan set we file with them.

Peter Cooke
978.399.8600 (M)

From: Barbara Barhydt <BAB@portlandmaine.gov>
Date: Tuesday, June 26, 2012 10:58 AM
To: Peter Cooke <pcooke@wellmanassociates.net>
Cc: Deb Andrews <DGA@portlandmaine.gov>
Subject: Re: AT&T Mobility Proposed Installation at 25 Pearl Street

Hi Peter:

I spoke with Deb this morning and she said that the site is outside of the district boundaries, thus it does not require Historic Preservation Review. I have added her on this e-mail to confirm.

I will finish my review when I receive the additional information. You will need to obtain a building permit, so you will want to submit an application to the Inspections Division if you have not done that already.

Thank you.

Barbara

Barbara Barhydt
Development Review Services Manager
Planning Division
389 Congress Street 4th Floor
Portland, ME 04101
(207) 874-8699
Fax: (207) 756-8256

SD050

CUSTOM MODEL

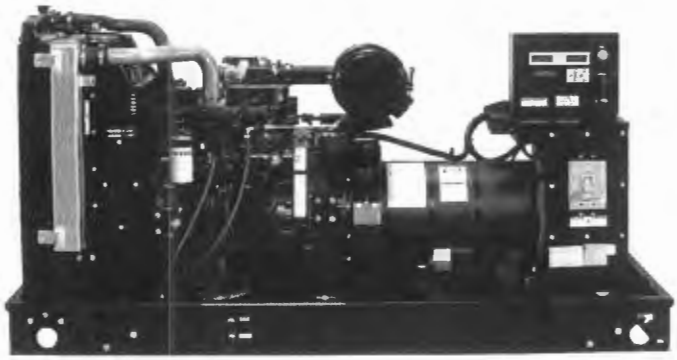
GENERAC® | INDUSTRIAL

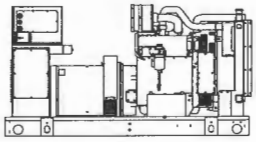
Industrial Diesel Generator Set

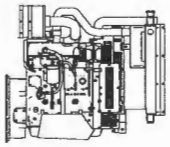
EPA Emissions Certification: Tier III

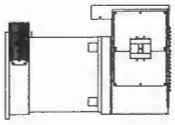
50 kW Diesel

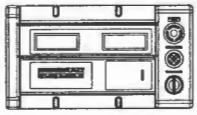
Standby Power Rating
50KW 60 Hz











features benefits

Generator Set	
• PROTOTYPE & TORSIONALLY TESTED	▶ PROVIDES A PROVEN UNIT
• UL2200 TESTED	▶ ENSURES A QUALITY PRODUCT
• RHINOCOAT PAINT SYSTEM	▶ IMPROVES RESISTANCE TO ELEMENTS
• SOUND LEVEL 2 ENCLOSURE	▶ 71dbA @ 7 METERS (23FT)
Engine	
• EPA TIER CERTIFIED	▶ ENVIRONMENTALLY FRIENDLY
• INDUSTRIAL TESTED, GENERAC APPROVED	▶ ENSURES INDUSTRIAL STANDARDS
• POWER-MATCHED OUTPUT	▶ ENGINEERED FOR PERFORMANCE
• INDUSTRIAL GRADE	▶ IMPROVES LONGEVITY AND RELIABILITY
Alternator	
• TWO-THIRDS PITCH	▶ ELIMINATES HARMFUL 3RD HARMONIC
• LAYER WOUND ROTOR & STATOR	▶ IMPROVES COOLING
• CLASS H MATERIALS	▶ HEAT TOLERANT DESIGN
• DIGITAL 3-PHASE VOLTAGE CONTROL	▶ FAST AND ACCURATE RESPONSE
Controls	
• ENCAPSULATED BOARD W/ SEALED HARNESS	▶ EASY, AFFORDABLE REPLACEMENT
• 4-20mA VOLTAGE-TO-CURRENT SENSORS	▶ NOISE RESISTANT 24/7 MONITORING
• SURFACE-MOUNT TECHNOLOGY	▶ PROVIDES VIBRATION RESISTANCE
• ADVANCED DIAGNOSTICS & COMMUNICATIONS	▶ HARDENED RELIABILITY

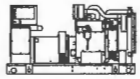
primary codes and standards

NEMA · cULus LISTED · NFPA · ASME · ISO · CE

SD050

standard features and options

GENERATOR SET



● Genset Vibration Isolation	Std
● Factory Testing	Std
● Extended warranty	Std
● Padlockable Doors	Std
● Steel Enclosure (Enclosed Models)	Std
○ Remote Emergency Shutdown	Opt

ENGINE SYSTEM

General

● Oil Drain Extension	Std
● Air Cleaner	Std
● Industrial Exhaust Silencer (Open Sets, ship loose)	Std
● Critical Exhaust Silencer (Enclosed Sets)	Std
● Stainless steel flexible exhaust connection	Std

Fuel System

● Primary Fuel Filter with Water Separator	Std
● Flexible Fuel Lines	Std
● UL142 Fuel Tank, 48 Hr Runtime	Std
● 2 Gal Overflow Containment with Alarm	Std

Cooling System

● 120VAC Coolant Heater (3-wire connection cord)	Std
● 50%/50% Coolant	Std
● Level 1 Guarding (Open Sets)	Std
● Closed Coolant Recovery System	Std
● UV/Ozone resistant hoses	Std
● Factory-Installed Radiator	Std
● Radiator Drain Extension	Std
● Fan guard	Std
● Radiator duct adapter (Open Sets)	Std
●	

Engine Electrical System

● Battery charging alternator	Std
● Battery cables	Std
● Battery tray	Std
● 75W 120VAC Battery heater	Std
● Solenoid activated starter motor	Std
● 10A UL float/equalize battery charger	Std
● Weather Resistant electrical connections	Std
● Duplex GFCI Convenience Outlet	Std

ALTERNATOR SYSTEM

● UL2200 GENprotect™	Std
● 100% Rated 200A Main Line Circuit Breaker	Std

CONTROL SYSTEM

Control Panel

● Digital H Control Panel - Dual 4x20 Display	Std
● Programmable Crank Limiter	Std
● 7-Day Programmable Exerciser (requires H-Transfer Switch)	Std
● Special Applications Programmable PLC	Std
● RS-232	Std
● RS-485	Std
● All-Phase Sensing DVR	Std
● Full System Status	Std
● Utility Monitoring (Req. H-Transfer Switch)	Std
● 2-Wire Start Compatible	Std
● Power Output (kW)	Std
● Power Factor	Std
● Reactive Power	Std
● All phase AC Voltage	Std
● All phase Currents	Std
● Oil Pressure	Std
● Coolant Temperature	Std
● Coolant Level	Std
● Low Fuel Pressure Indication	Std
● Engine Speed	Std
● Battery Voltage	Std
● Frequency	Std
● Date/Time Fault History (Event Log)	Std
● UL2200 GENprotect™	Std
○ Low-Speed Exercise	Opt
● Isochronous Governor Control	Std
● -40deg C - 70deg C Operation	Std
● Weather Resistant Electrical Connections	Std
● Audible Alarms and Shutdowns	Std
● Not in Auto (Flashing Light)	Std
● On/Off/Manual Switch	Std
● E-Stop (Red Mushroom-Type)	Std
○ Remote E-Stop (Break Glass-Type, Surface Mount)	-
○ Remote E-Stop (Red Mushroom-Type, Surface Mount)	-
○ Remote E-Stop (Red Mushroom-Type, Flush Mount)	-
● NFPA 110 Level I and II (Programmable)	Std
● Remote Communication - RS232	Std

Alarms (Programmable Tolerances, Pre-Alarms and Shutdowns)

● Low Fuel	Std
● Oil Pressure (Pre-programmed Low Pressure Shutdown)	Std
● Coolant Temperature (Pre-programmed High Temp Shutdo	Std
● Coolant Level (Pre-programmed Low Level Shutdown)	Std
● Engine Speed (Pre-programmed Overspeed Shutdown)	Std
● Voltage (Pre-programmed Overvoltage Shutdown)	Std
● Battery Voltage	Std

Other Options

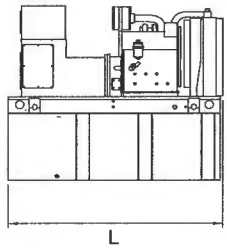
● Single Side Service

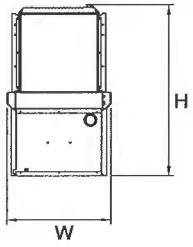
● _____

○ _____

SD050

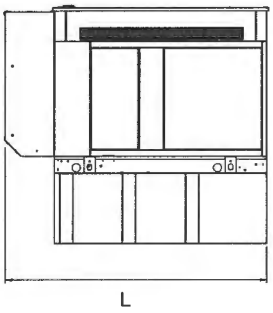
dimensions, weights and sound levels

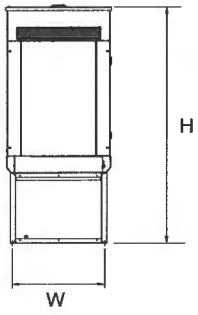




OPEN SET

	TANK SIZE							
	RUNTIME HOURS	CAPACITY (GAL)	TANK VOLUME	L	W	H	WT	dBA*
○	-	-	-	-	-	-	-	84
○	-	-	-	-	-	-	-	
○	-	-	-	-	-	-	-	
○	-	-	-	-	-	-	-	
○	-	-	-	-	-	-	-	
●	48	210	210	76	38	87	3400	
○	-	-	-	-	-	-	-	
○	-	-	-	-	-	-	-	





LEVEL 2 SOUND ENCLOSURE

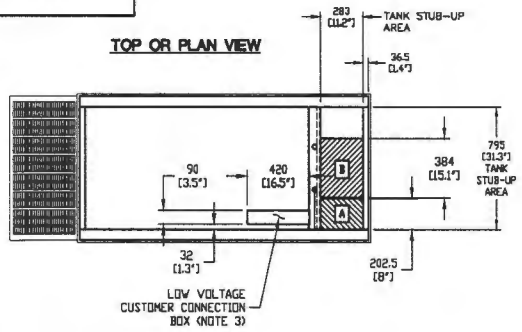
	TANK SIZE							
	RUNTIME HOURS	CAPACITY (GAL)	TANK VOLUME	L	W	H	WT	dBA*
○	-	-	-	-	-	-	-	71
○	-	-	-	-	-	-	-	
○	-	-	-	-	-	-	-	
○	-	-	-	-	-	-	-	
○	-	-	-	-	-	-	-	
●	48	210	210	94.8	38	99	3935	
○	-	-	-	-	-	-	-	
○	-	-	-	-	-	-	-	

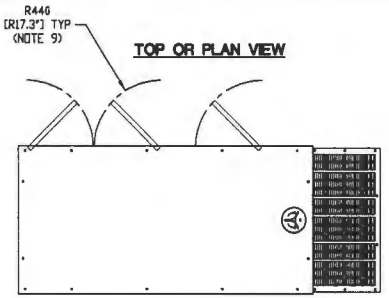
*Required gallons based on 100% of standby rating. Weights consider steel enclosure and are without fuel in tank. Sound levels measured at 23ft (7m) and does not account for ambient site conditions.

YOUR FACTORY RECOGNIZED GENERAC INDUSTRIAL DEALER

Specification characteristics may change without notice. Dimensions and weights are for preliminary purposes only. Please consult a Generac Power Systems Industrial Dealer for detailed installation drawings.

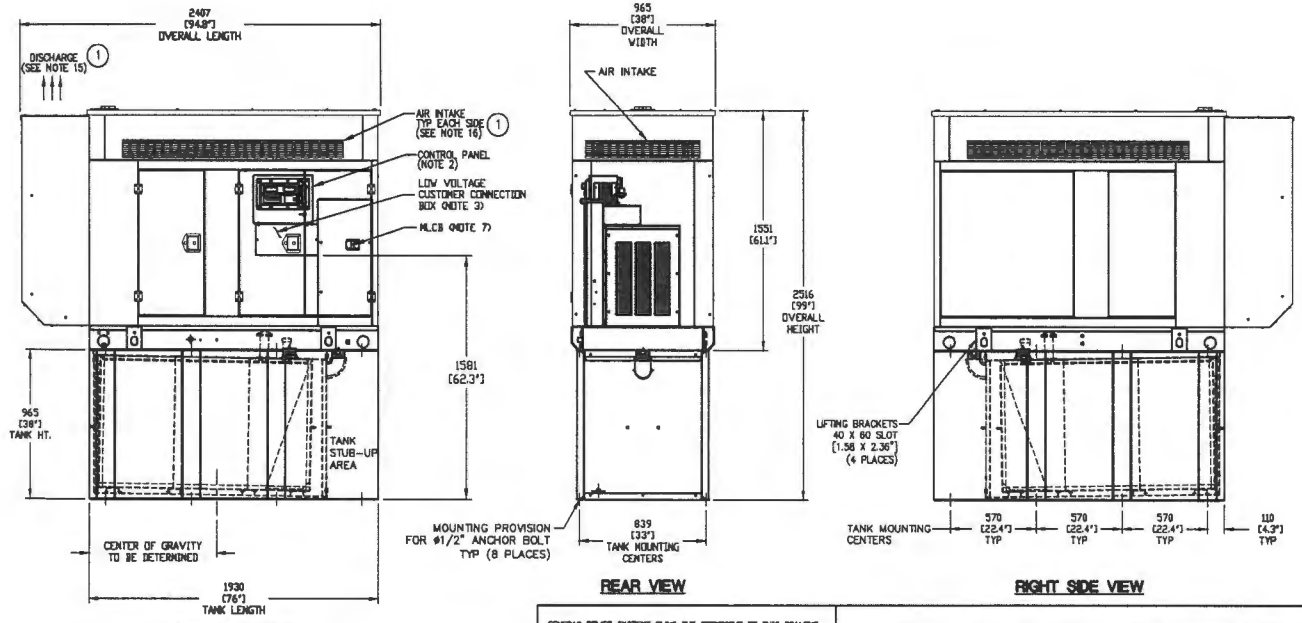
0J2534





RECOMMENDED ELECTRICAL STUB-UPS (SEE TOP VIEW)

DESCRIPTION	INSIDE BASE
AC LOAD LEAD CONDUIT GLAND AREA	A
1) LOW VOLTAGE CUSTOMER CONNECTION BOX FOR 120VAC GFCI OUTLET, (STANDARD BLOCK HEATER, BATTERY CHARGER AND OTHER 120 VAC OPTIONS). 2) TRANSFER SWITCH / COMMUNICATION CONDUITS. COMMUNICATIONS AND 2-WIRE START MUST NOT BE RUN IN CONDUIT WITH AC WIRING.	B SEE NOTE 3



NOTES:

1. THE LEFT SIDE OF THE GENERATOR IS SERVICE ACCESSIBLE.
2. 10 AMP BATTERY CHARGER ENCLOSED WITHIN CONTROL PANEL.
3. CONNECTION POINTS FOR CONTROL WIRES. BOTTOM OF LOW VOLTAGE CUSTOMER CONNECTION BOX HAS KNOCKOUTS FOR 1/2" AND 3/4" CONDUIT FITTINGS.
4. GENERATOR MUST BE GROUNDED.
5. 12 VOLT NEGATIVE GROUND SYSTEM.
6. OPTIONAL REMOTE EMERGENCY STOP SHIPPED LOOSE WITH GENERATOR.
7. MAIN LINE CIRCUIT BREAKER (MLCB), AC LOAD LEAD CONNECTION AND AUXILIARY 120/240V CONNECTION.
8. LEVEL 2A SOUND ATTENUATED ENCLOSURE STANDARD WITH GENERATOR.
9. DOORS MUST BE ABLE TO OPEN 90 DEG. TO BE REMOVED. DOORS ARE LOCATED ON THE LEFT SIDE OF THE GENERATOR ONLY.
10. STUB-UPS: BASE TANK REQUIRES ALL STUB-UPS TO BE IN THE REAR TANK STUB-UP AREA.
11. 'A' IS THE STUB UP AREA FOR THE MLCB AND NEUTRAL CONNECTION.
12. SEE DRAWING 0C3850 FOR DUCT REMOVAL. REMOVAL OF FRONT DUCT WILL PROVIDE ACCESS TO MUFFLER.
13. 120VAC ENGINE BLOCK HEATER.
14. 210 GALLON USEABLE CAPACITY BASETANK STANDARD WITH GENERATOR.
15. (1) MUST ALLOW FREE FLOW OF DISCHARGE AIR AND EXHAUST. SEE SPEC SHEET FOR MINIMUM AIR FLOW AND MAXIMUM RESTRICTION REQUIREMENTS.
16. (1) MUST ALLOW FREE FLOW OF INTAKE AIR. SEE SPEC SHEET FOR MINIMUM AIR FLOW AND MAXIMUM RESTRICTION REQUIREMENTS.
17. (1) IT IS THE RESPONSIBILITY OF THE INSTALLATION TECHNICIAN TO ENSURE THAT THE GENERATOR INSTALLATION COMPLIES WITH ALL APPLICABLE CODES, STANDARDS, AND REGULATIONS.

WEIGHT DATA (INCLUDES WOODEN SHIPPING SKID)

ENCLOSED GENERATOR WITH EMPTY FUEL TANK – TO BE DETERMINED

UNITS: mm [INCHES]

PRELIMINARY

INSTALLATION DRAWING

INSTALLATION D4.5L G17 50KW

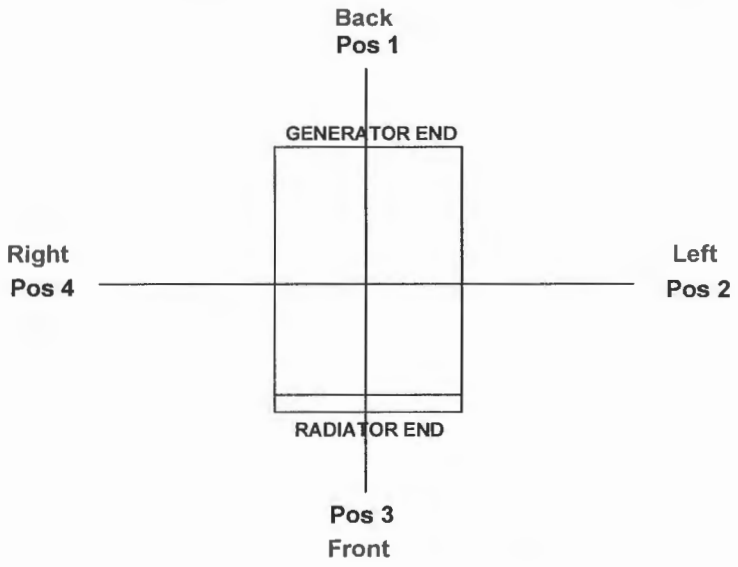
ENCLOSED LEVEL 2A

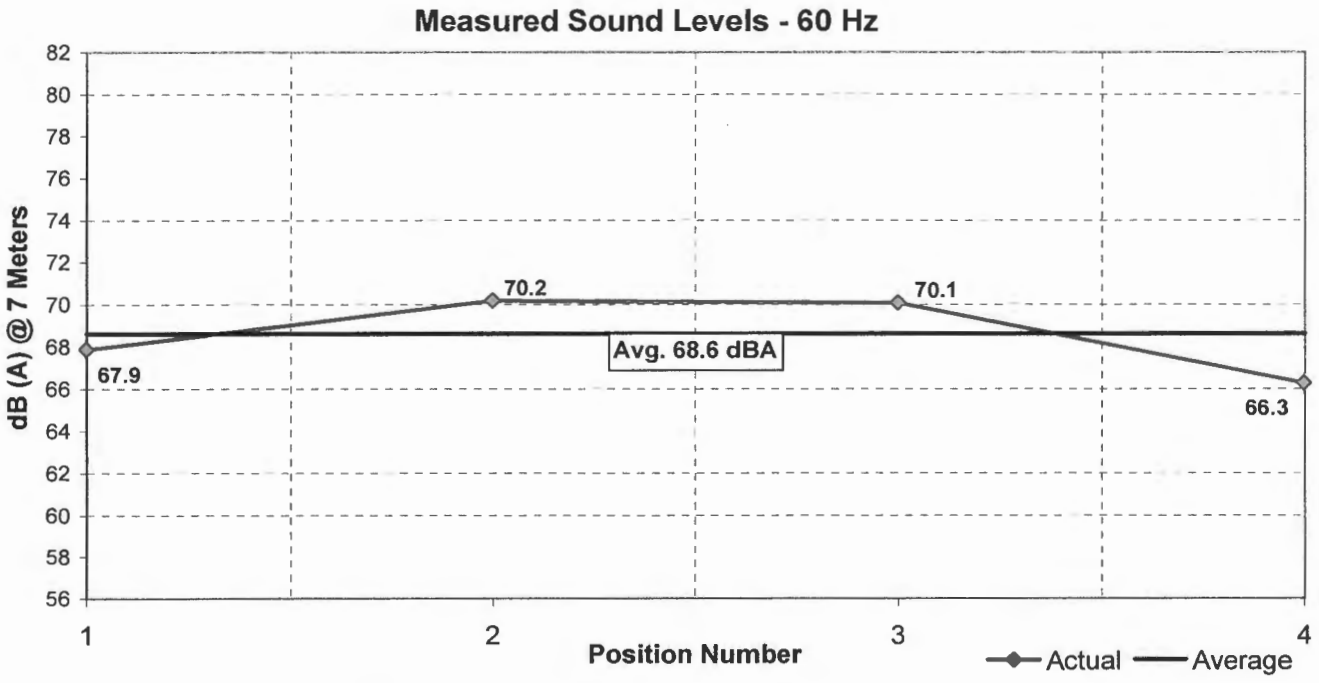
GENERAC POWER SYSTEMS
Waukesha
P.O. BOX 8
WAUKESHA, WIS. 53187

FILE NAME	0J2534.DWG	SIZE	B
SCALE	NTS	FIRST USE	AT&T
DWG NO.	0J2534	REV	1

Sound Test Results

Genset: SD050 4.5L Iveco
Enclosure: Sound Attenuated, Level 2





Notes:

1. All positions 23 ft (7M) from side faces of generator set.
2. Generator operating at full load.
3. Test conducted on a 100 foot diameter asphault surface.
4. Non-enclosed sets do not include exhaust sound during testing.

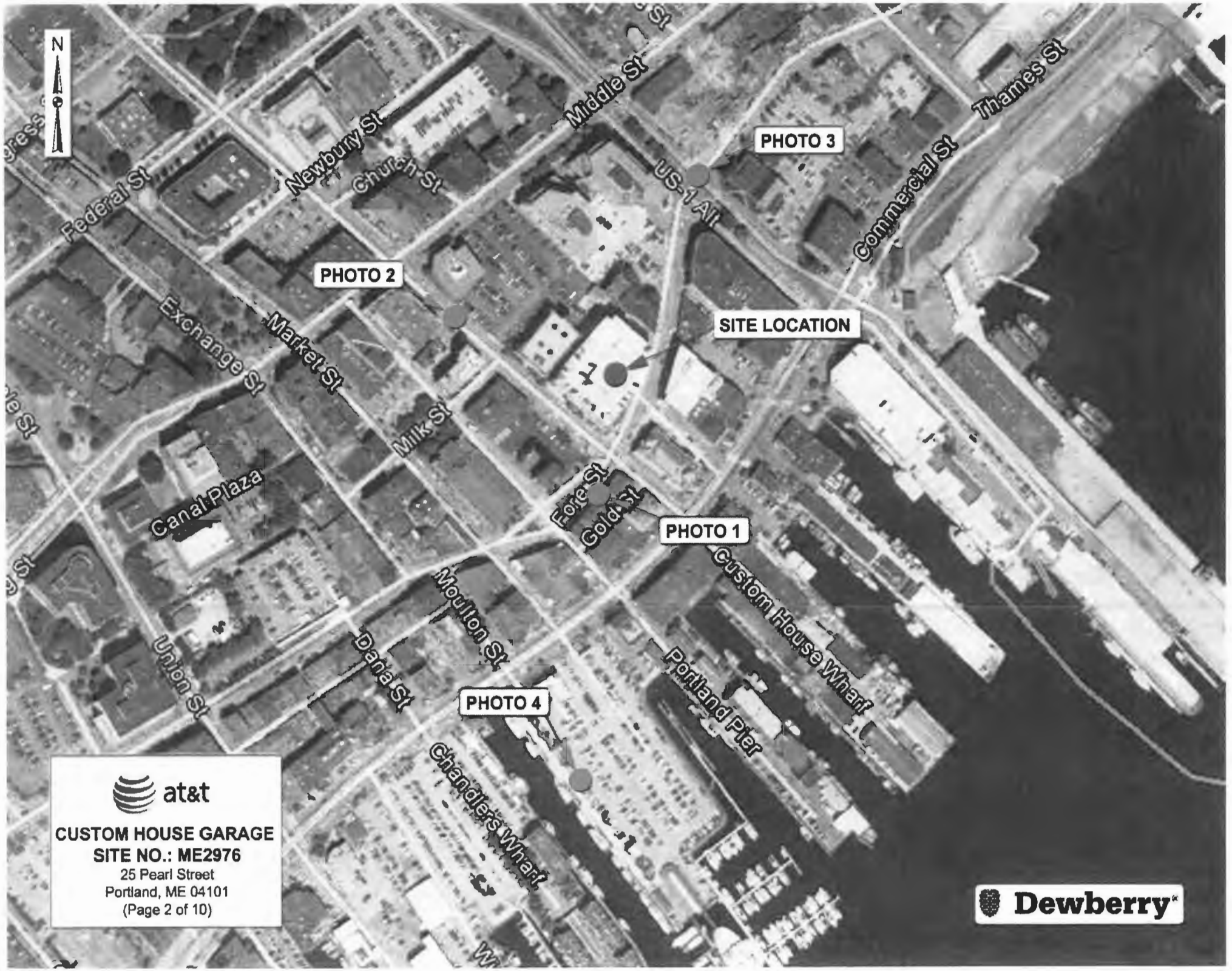
Prepared For:
AT&T Mobility
Site No.: ME2976
Site Name:
CUSTOM HOUSE GARAGE
25 Pearl Street
Portland, ME 04101

For visual reference only. Actual visibility is dependent upon weather conditions, season, sunlight, and viewer location.

at&t
550 Cochituate Road
Suites 13 & 14
Framingham, MA 01701

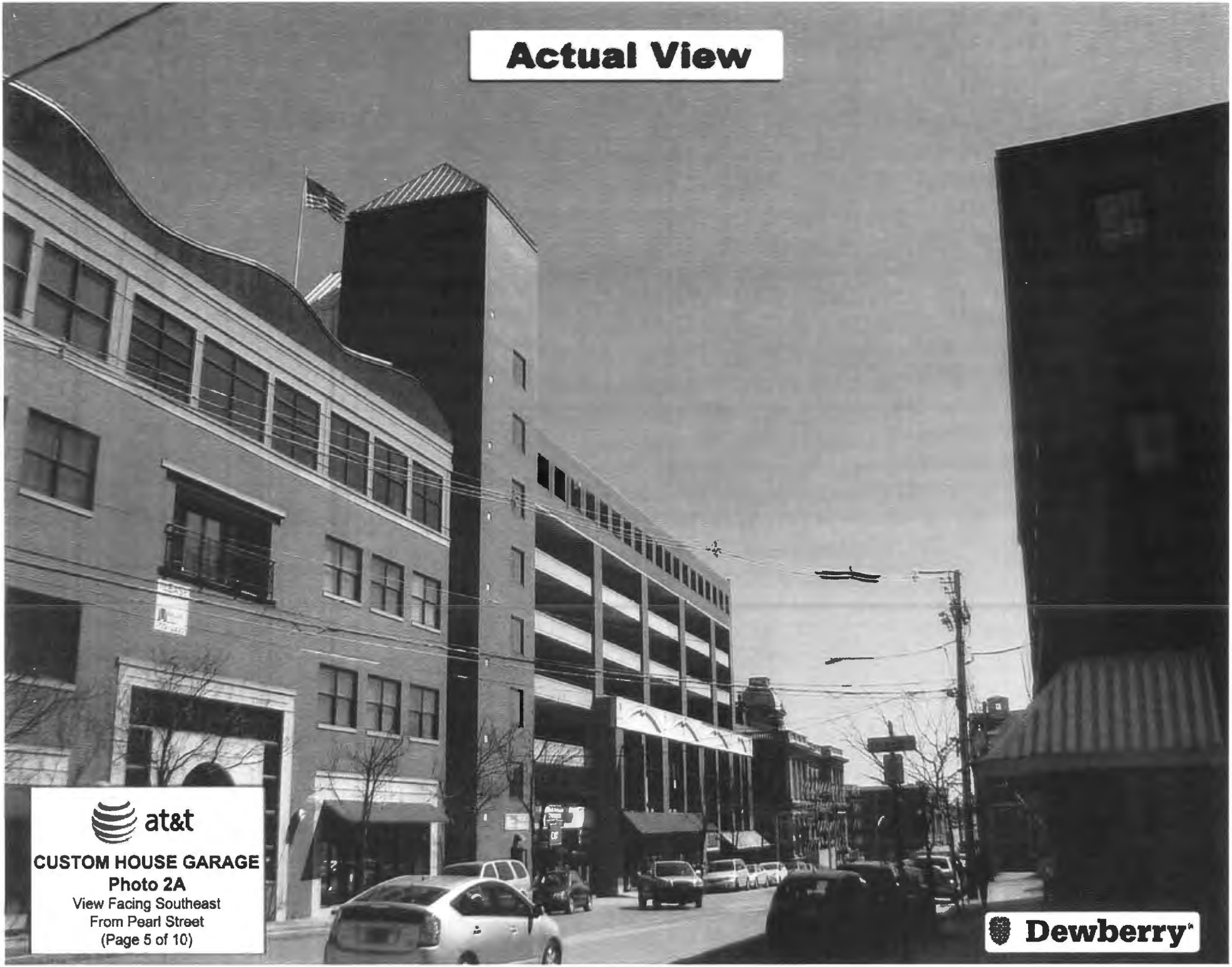
SAI communications

Dewberry
Dewberry Engineers, Inc.
280 Summer St.
10th Floor
Boston, MA 02210

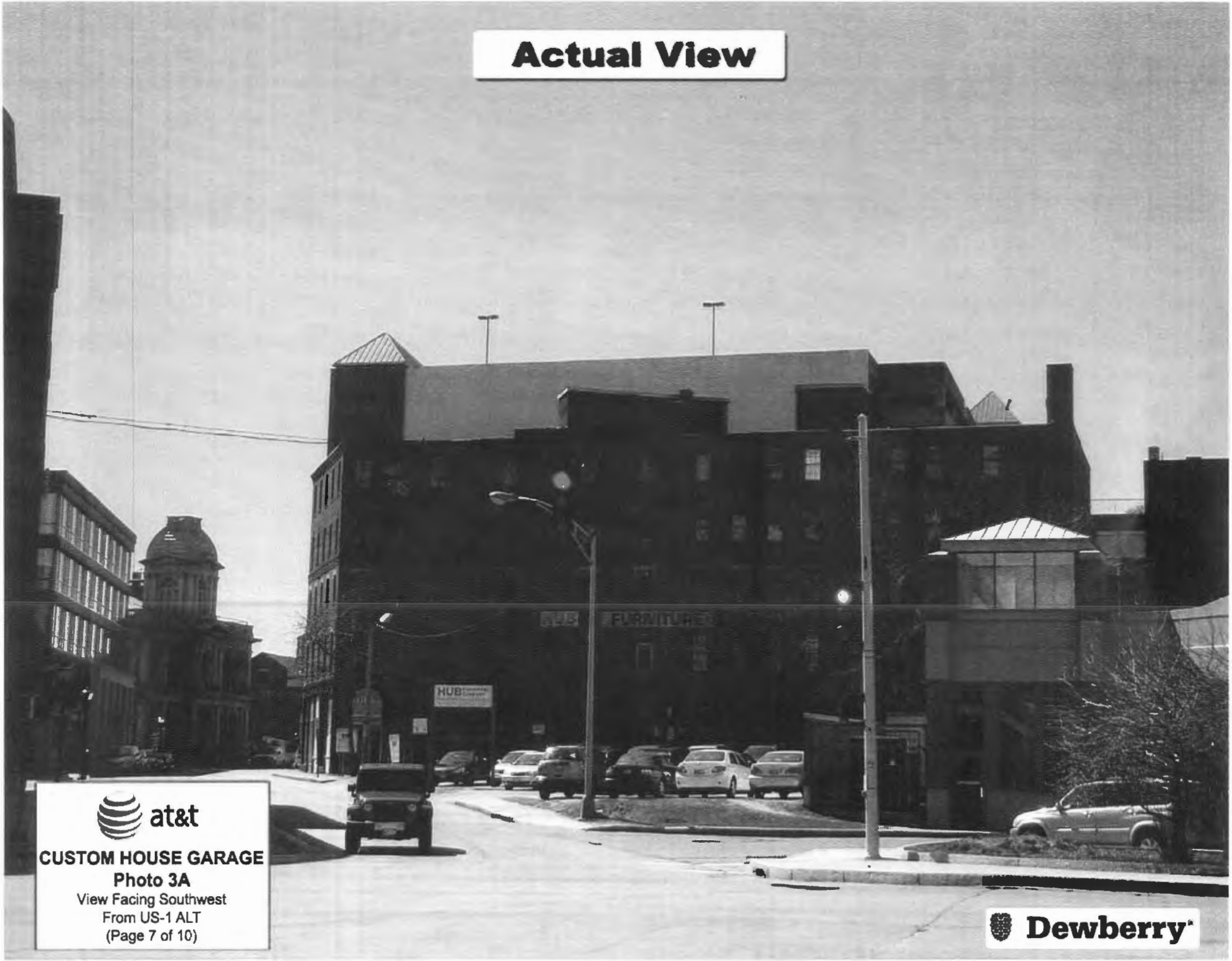

N
Federal St
Newbury St
Church St
Middle St
US-1 Alt
Commercial St
Thames St
PHOTO 3
PHOTO 2
SITE LOCATION
Exchange St
Market St
Milk St
Canal Plaza
Fore St
Gold St
PHOTO 1
Custom House Wharf
Moulton St
Union St
Dana St
PHOTO 4
Portland Pier
Chandlers Wharf
at&t
CUSTOM HOUSE GARAGE
SITE NO.: ME2976
25 Pearl Street
Portland, ME 04101
(Page 2 of 10)
Dewberry


Actual View
at&t
CUSTOM HOUSE GARAGE
Photo 1A
View Facing North
From Fore Street
(Page 3 of 10)
Dewberry

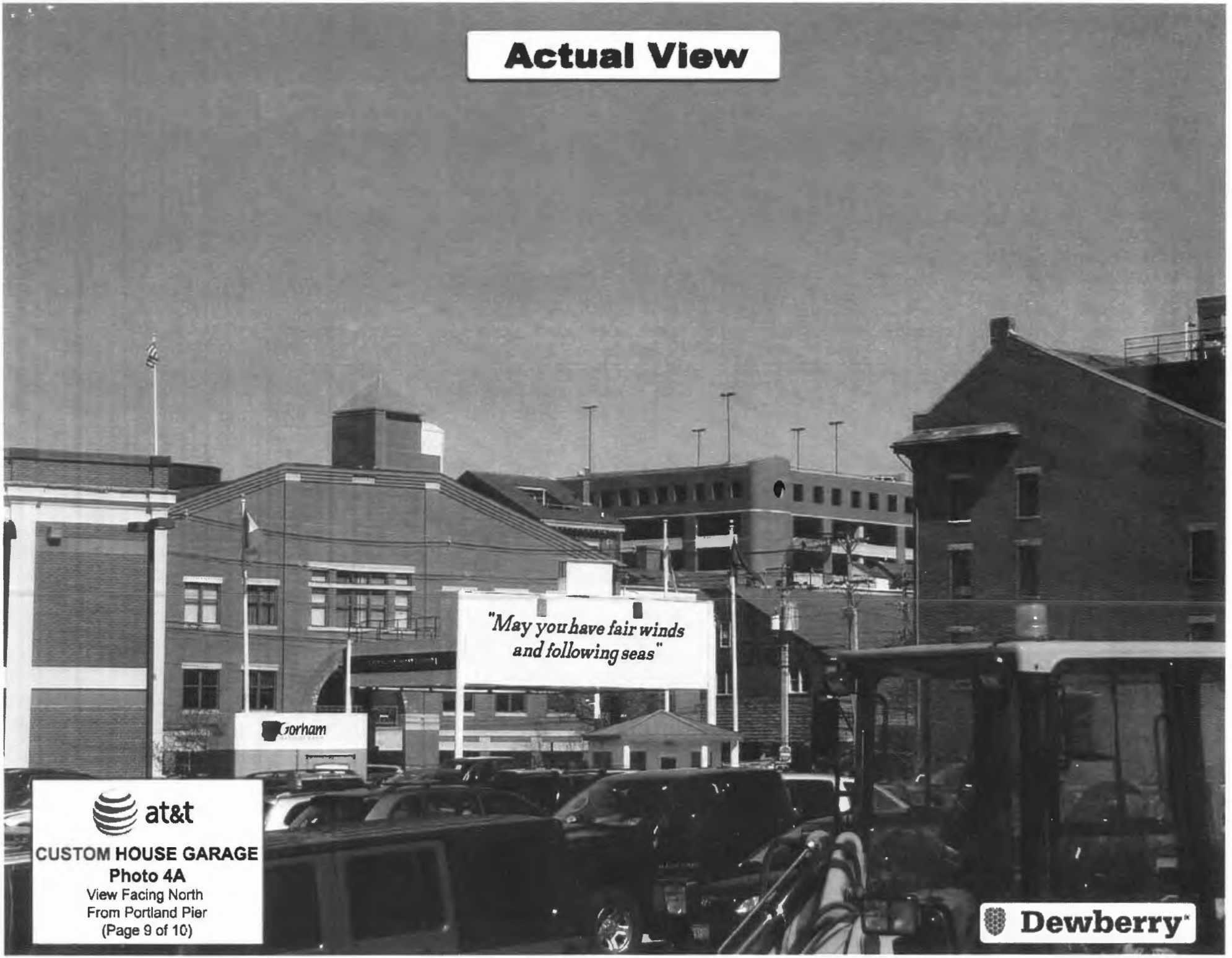

Proposed View
Proposed Facade Mounted Antenna (4/Sector) (Typ.-12)
at&t
CUSTOM HOUSE GARAGE
Photo 1B
View Facing North
From Fore Street
(Page 4 of 10)
Dewberry


Actual View
at&t
CUSTOM HOUSE GARAGE
Photo 2A
View Facing Southeast
From Pearl Street
(Page 5 of 10)
Dewberry

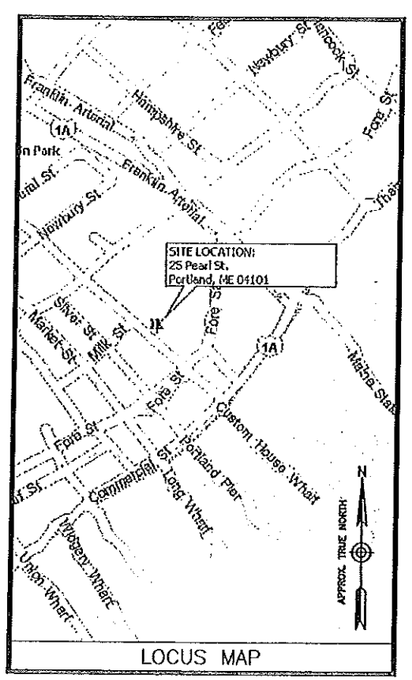

Proposed View
Proposed Facade Mounted Antenna (4/Sector) (Typ.-12)
at&t
CUSTOM HOUSE GARAGE
Photo 2B
View Facing Southeast
From Pearl Street
(Page 6 of 10)
Dewberry


Actual View
HUB
FURNITURE
at&t
CUSTOM HOUSE GARAGE
Photo 3A
View Facing Southwest
From US-1 ALT
(Page 7 of 10)
Dewberry


Proposed View
Proposed Facade Mounted Antenna (4/Sector) (Typ.-12)
Proposed Cable Tray On Building facade
at&t
CUSTOM HOUSE GARAGE
Photo 3B
View Facing Southwest
From US-1 ALT
(Page 8 of 10)
Dewberry


Actual View
"May you have fair winds and following seas"
Gorham
at&t
CUSTOM HOUSE GARAGE
Photo 4A
View Facing North
From Portland Pier
(Page 9 of 10)
Dewberry

CUSTOM HOUSE GARAGE
SITE NO.: ME2976
25 PEARL STREET
PORTLAND, ME 04101



LOCUS MAP

FROM FRAMINGHAM: TAKE I-90 E/MASSPIKE. TAKE EXIT 14 FOR I-95 N. SLIGHT RIGHT ONTO I-295 N. TAKE THE EXIT TOWARD S. PORTLAND. CONTINUE STRAIGHT ONTO VETERANS MEMORIAL BRIDGE. TURN RIGHT ONTO W COMMERCIAL ST/US-1. TURN LEFT ONTO PEARL ST. DESTINATION WILL BE ON THE RIGHT.

ENGINEER
DEWBERRY
280 SUMMER STREET
10TH FLOOR
BOSTON, MA 02210

PHONE # (617) 695-3400
FAX # (617) 695-3310

CONTACT: BENJAMIN REVETTE

SITE ACQUISITION
WELLMAN ASSOCIATES, INC.
70 BROADWAY STREET
P.O. BOX 738
WESTFORD, MA 01886

PHONE # (978) 846-4954

CONTACT: GIN VILANTE

CONSTRUCTION
SAI COMMUNICATIONS
22 KEEWAYDIN DRIVE
SALEM, NH 03079

PHONE # (603) 531-9230
FAX # (603) 893-1104

CONTACT: TOBY SLAGLE

CONSULTANT TEAM

SITE NAME:
CUSTOM HOUSE GARAGE

PROPERTY OWNER:
25 PEARL MHR LLC.
P.O. BOX 7488
PORTLAND, ME 04112

APPLICANT/DEVELOPER:
AT&T MOBILITY
550 COCHITUATE ROAD
SUITES 13 & 14
FRAMINGHAM, MA 01701

ELECTRIC UTILITY:
CENTRAL MAINE POWER
(800) 696-1000

TELEPHONE UTILITY:
FAIRPOINT
(866) 984-3001

COORDINATES:*
LATITUDE: 43° 39' 27.68" N
LONGITUDE: 70° 15' 07.51" W
*PER 1A SURVEY

PROJECT SUMMARY

SITE ADDRESS:
25 PEARL STREET
PORTLAND, ME 04101

MAP/LOT:
MAP 29 LOT E009001

ZONING DISTRUCT
B3-DOWNTOWN BUSINESS

PROJECT DIRECTORY

A PROPOSED EQUIPMENT SHELTER AND DIESEL GENERATOR AT GRADE. TWELVE (12) PANEL ANTENNAS WILL BE INSTALLED (4/SECTOR) ON THE BUILDING FACADE. POWER & TELCO WILL COME FROM EXISTING SOURCES ON SITE.

PROJECT DESCRIPTION

THIS DOCUMENT WAS DEVELOPED TO REFLECT A SPECIFIC SITE AND ITS SITE CONDITIONS AND IS NOT TO BE USED FOR ANOTHER SITE OR WHEN OTHER CONDITIONS PERTAIN. REUSE OF THIS DOCUMENT IS AT THE SOLE RISK OF THE USER.

A.D.A. COMPLIANCE:
FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.

SHT. NO.	DESCRIPTION
T-1	TITLE SHEET
G-1	GENERAL NOTES
A-1	ABUTTERS PLAN
C-1	PROPOSED SITE PLAN & EQUIPMENT PLAN
C-2	ELEVATIONS
C-3	CONSTRUCTION DETAILS - I
C-4	CONSTRUCTION DETAILS - II
C-5	CONSTRUCTION DETAILS -- III
C-6	ANTENNA B.O.M. & ANTENNA DETAILS
E-1	ELECTRICAL RISER DIAGRAM
E-2	SCHEMATIC GROUNDING PLAN
E-3	GROUNDING DETAILS

SHEET INDEX

at&t Mobility
550 COCHITUATE ROAD
SUITES 13 & 14
FRAMINGHAM, MA 01701

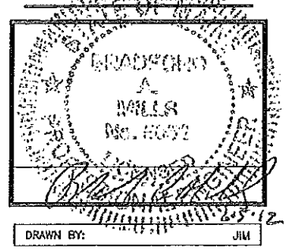
CUSTOM HOUSE GARAGE
SITE NO.: ME2976

SAI communications
22 KEEWAYDIN DRIVE
SALEM, NH 03079

CONSTRUCTION DRAWINGS		
0	06/05/12	FOR CONSTRUCTION
A	04/06/11	FOR COMMENT

Dewberry

Dewberry Engineers, Inc.
280 SUMMER STREET
10TH FLOOR
BOSTON, MA 02210
PHONE 617.695.3400
FAX 617.695.3310



DRAWN BY:	JIM
REVIEWED BY:	DAS
CHECKED BY:	PPB
PROJECT NUMBER:	50003936
JOB NUMBER:	50041016
SITE ADDRESS	

25 PEARL STREET
PORTLAND, ME 04101

SHEET TITLE

TITLE SHEET

SHEET NUMBER

T-1

GENERAL CONSTRUCTION NOTES:

1. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH AT&T MOBILITY SPECIFICATIONS.
2. CONTRACTOR SHALL CONTACT "DIG SAFE 1888 DIG SAFE" (888-344-7233) FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
4. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
5. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
6. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
7. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
9. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
10. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE OWNER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO PROCEEDING.
11. EACH CONTRACTOR SHALL COOPERATE WITH THE OWNER'S REPRESENTATIVE, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
12. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE AT&T MOBILITY CONSTRUCTION MANAGER.
13. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
14. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR WILL NOTIFY ENGINEER, AT&T MOBILITY PROJECT CONSTRUCTION MANAGER, AND LANDLORD IMMEDIATELY.
15. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
16. ALL ROOF WORK SHALL BE DONE BY A QUALIFIED AND EXPERIENCED ROOFING CONTRACTOR IN COORDINATION WITH ANY CONTRACTOR WARRANTING THE ROOF TO ENSURE THAT THE WARRANTY IS MAINTAINED.
17. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
18. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH LANDLORD AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
19. CONTRACTOR SHALL FURNISH AT&T MOBILITY WITH THREE AS-BUILT SETS OF DRAWINGS UPON COMPLETION OF WORK.
20. ANTENNAS AND CABLES ARE TYPICALLY PROVIDED BY AT&T MOBILITY. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH AT&T MOBILITY PROJECT MANAGER TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED BY AT&T MOBILITY WIRELESS. ALL ITEMS NOT PROVIDED BY AT&T MOBILITY SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED BY AT&T MOBILITY.
21. CONTRACTOR SHALL PROVIDE A 40 PINT DEHUMIDIFIER (GENERAL ELECTRIC OR WHITE WESTINGHOUSE) AND BASE TO BE INSTALLED IN THE EQUIPMENT SHELTER. THE BASE SHALL BE CONSTRUCTED OF 3/8" THICK (MIN.) PLYWOOD AND PAINTED TO MATCH THE SHELTER INTERIOR. CONTRACTOR SHALL INSTALL A DRAINAGE TUBE FROM THE DEHUMIDIFIER THROUGH A WALL PENETRATION IN THE SHELTER WALL. CONTRACTOR SHALL SEAL THE WALL PENETRATION WITH SILICONE SEALANT AND ENSURE THAT IT IS WATERTIGHT. THE EXACT SIZE OF THE BASE SHALL BE COORDINATED WITH DEHUMIDIFIER SPECIFICATIONS AND LOCATION OF DRAIN HOLE.
22. PRIOR TO SUBMISSION OF BID, CONTRACTOR WILL COORDINATE WITH AT&T MOBILITY PROJECT MANAGER TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY AT&T MOBILITY. ALL REQUIRED PERMITS NOT OBTAINED BY AT&T MOBILITY MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
23. CONTRACTOR SHALL START UP HVAC UNITS AND SYNCHRONIZE THE THERMOSTATS.
24. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH AT&T MOBILITY SPECIFICATIONS AND REQUIREMENTS.
25. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
26. UNLESS OTHERWISE NOTED AT&T MOBILITY SHALL PROVIDE ALL REQUIRED RF MATERIAL FOR CONTRACTOR TO INSTALL, INCLUDING ANTENNAS, TMA'S, BIAS-T'S, COMBINERS, PDU, DC BLOCKS, SURGE ARRESTORS, GPS ANTENNA, GPS SURGE ARRESTOR, COAXIAL CABLE.
27. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL VERIFY ALL EQUIPMENT TO BE PROVIDED BY AT&T MOBILITY FOR INSTALLATION BY CONTRACTOR.
28. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO AT&T MOBILITY SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
29. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLEY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
30. EQUIPMENT SHELTER SHALL HAVE ONE (1) EXTERIOR MOTION DETECTOR OPERATED 100-WATT LIGHT WITH DOWNWARD REFLECTOR SHIELD.
31. CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF 48 HOURS IN ADVANCE PRIOR TO CONSTRUCTION START, MORE SPECIFICALLY BEFORE; SEALING ANY FLOOR, WALL OR ROOF PENETRATION, FINAL UTILITY CONNECTIONS, POURING CONCRETE, BACKFILLING UTILITY TRENCHES AND STRUCTURAL POST OR MOUNTING CONNECTIONS, FOR ENGINEERING REVIEW AND INSPECTION.
32. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.

GENERAL FOUNDATION NOTES:

1. THOROUGHLY COMPACT BOTTOM OF EXCAVATIONS PRIOR TO PLACING RIGID INSULATION BARRIER. BACKFILL AND COMPACTION PROCEDURES SHALL BE DONE PER INDUSTRY STANDARDS.
2. ALL REINFORCING STEEL SHALL BE ASTM A615 – GRADE 60. SECURE REINFORCING IN PLACE TO PREVENT MOVEMENT DURING CONCRETE PLACEMENT.
3. PROVIDE A CLEAR COVER OF 2" FOR ALL REINFORCING STEEL. THIS REQUIREMENT SHALL BE CONSIDERED ACTUAL AND SHOULD NOT BE ADJUSTED IN THE FIELD.
4. VERIFY DETAILS AND DIMENSIONS WITH SHELTER DRAWINGS. NOTIFY AT&T MOBILITY OF ANY DISCREPANCIES.
5. ALL WORK SHALL COMPLY WITH THE LOCAL AND STATE BUILDING CODES.
6. INSULATION BARRIER PROVIDED IS FOR FROST PROTECTION IN LIEU OF STANDARD FOUNDATIONS WITH BEARING AT CODE REQUIRED FROST DEPTH.
7. SHELTER MUST BE ANCHORED TO ITS FOUNDATION. ANCHOR IN ACCORDANCE WITH SHELTER MANUFACTURER SPECIFICATIONS.

CONCRETE AND REINFORCING STEEL NOTES:

1. DESIGN AND CONSTRUCTION OF ALL CONCRETE ELEMENTS SHALL CONFORM TO THE LATEST EDITIONS OF ALL APPLICABLE CODES INCLUDING: ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", AND ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE".
2. MIX DESIGN SHALL BE APPROVED BY OWNER'S REPRESENTATIVE AND SUBMITTED TO ENGINEER PRIOR TO PLACING CONCRETE.
3. CONCRETE SHALL BE NORMAL WEIGHT, 6 % AIR ENTRAINED (+/- 1.5%) WITH A MAXIMUM 4" SLUMP AND HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI UNLESS OTHERWISE NOTED.
4. THE FOLLOWING MATERIALS SHALL BE USED:
   PORTLAND CEMENT: ASTM C-150, TYPE 1 OR 2
   REINFORCEMENT: ASTM A-185, PLAIN STEEL WELDED WIRE FABRIC
   REINFORCEMENT BARS: ASTM A615, GRADE 60, DEFORMED
   NORMAL WEIGHT AGGREGATE: ASTM C-33
   WATER: DRINKABLE
   ADMIXTURES: NON-CHLORIDE CONTAINING
5. MINIMUM CONCRETE COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS (UNLESS OTHERWISE NOTED):
   A. CONCRETE CAST AGAINST EARTH: 3"
   B. ALL OTHER CONCRETE: 2"
6. A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE IN ACCORDANCE WITH ACI 301 SECTION 4.2.4, UNLESS NOTED OTHERWISE.
7. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL, OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR ENGINEERING APPROVAL WHEN DRILLING HOLES IN CONCRETE.
8. ADMIXTURES SHALL CONFORM TO THE APPROPRIATE ASTM STANDARD AS REFERENCED IN ACI 301.
9. DO NOT WELD OR TACK WELD REINFORCING STEEL.
10. ALL DOWELS, ANCHOR BOLTS, EMBEDDED STEEL, ELECTRICAL CONDUITS, PIPE SLEEVES, GROUNDS AND ALL OTHER EMBEDDED ITEMS AND FORMED DETAILS SHALL BE IN PLACE BEFORE START OF CONCRETE PLACEMENT.
11. REINFORCEMENT SHALL BE COLD BENT WHENEVER BENDING IS REQUIRED.
12. DO NOT PLACE CONCRETE IN WATER, ICE, OR ON FROZEN GROUND.
13. DO NOT ALLOW REINFORCEMENT, CONCRETE OR SUBBASE TO FREEZE DURING CONCRETE CURING AND SETTING PERIOD, OR FOR A MINIMUM OF 3 DAYS AFTER PLACEMENT.
14. FOR COLD-WEATHER AND HOT-WEATHER CONCRETE PLACEMENT, CONFORM TO APPLICABLE ACI CODES AND RECOMMENDATIONS. IN EITHER CASE, MATERIALS CONTAINING CHLORIDE, CALCIUM, SALTS, ETC. SHALL NOT BE USED. PROTECT FRESH CONCRETE FROM WEATHER FOR 7 DAYS, MINIMUM.
15. CONCRETE SHALL BE RUBBED TO A ROUGH GROUT FINISH. PADS SHALL BE SEALED BY STEEL TROWEL.
16. UNLESS OTHERWISE NOTED:
   A. ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60.
   B. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
17. SPLICING OF REINFORCEMENT IS PERMITTED ONLY AT LOCATIONS SHOWN IN THE CONTRACT DRAWINGS OR AS ACCEPTED BY THE ENGINEER. UNLESS OTHERWISE SHOWN OR NOTED REINFORCING STEEL SHALL BE SPLICED TO DEVELOP ITS FULL TENSILE CAPACITY (CLASS A) IN ACCORDANCE WITH ACI 318.
18. REINFORCING BAR DEVELOPMENT LENGTHS, AS COMPUTED IN ACCORDANCE WITH ACI 318, FORM THE BASIS FOR BAR EMBEDMENT LENGTHS AND BAR SPLICED LENGTHS SHOWN IN THE DRAWINGS. APPLY APPROPRIATE MODIFICATION FACTORS FOR TOP STEEL, BAR SPACING, COVER AND THE LIKE.
19. DETAILING OF REINFORCING STEEL SHALL CONFORM TO "ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" (ACI 315).
20. ALL SLAB CONSTRUCTION SHALL BE CAST MONOLITHICALLY WITHOUT HORIZONTAL CONSTRUCTION JOINTS, UNLESS SHOWN IN THE CONTRACT DRAWINGS.
21. LOCATION OF ALL CONSTRUCTION JOINTS ARE SUBJECT TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS, CONFORMANCE WITH ACI 318, AND ACCEPTANCE OF THE ENGINEER. DRAWINGS SHOWING LOCATION OF DETAILS OF THE PROPOSED CONSTRUCTION JOINTS SHALL BE SUBMITTED WITH REINFORCING STEEL PLACEMENT DRAWINGS
22. SPLICES OF WWF, AT ALL SPLICED EDGES, SHALL BE SUCH THAT THE OVERLAP MEASURED BETWEEN OUTERMOST CROSS WIRES OF EACH FABRIC SHEET IS NOT LESS THAN THE SPACING OF THE CROSS WIRE PLUS 2 INCHES, NOR LESS THAN 8".
23. BAR SUPPORTS SHALL BE ALL-GALVANIZED METAL WITH PLASTIC TIPS.
24. ALL REINFORCEMENT SHALL BE SECURELY TIED IN PLACE TO PREVENT DISPLACEMENT BY CONSTRUCTION TRAFFIC OR CONCRETE. TIE WIRE SHALL BE 16 GAUGE CONFORMING TO ASTM A82
25. SLAB ON GROUND
   A. COMPACT STRUCTURAL FILL TO 95% DENSITY AND THEN PLACE 6" GRAVEL BENEATH SLAB.
   B. PROVIDE VAPOR BARRIER BENEATH SLAB ON GROUND.

at&t Mobility
550 COCHITUATE ROAD
SUITES 13 & 14
FRAMINGHAM, MA 01701

CUSTOM HOUSE GARAGE
SITE NO.: ME2976

SAT communications
22 KEEWAYDIN DRIVE
SALEM, NH 03079

CONSTRUCTION DRAWINGS		
0	06/05/12	FOR CONSTRUCTION
A	04/06/11	FOR COMMENT

Dewberry
Dewberry Engineers, Inc.
280 SUMMER STREET
10TH FLOOR
BOSTON, MA 02210
PHONE: 617.695.8400
FAX: 617.695.8310

BRADLEY A. WILES No. 5052 LICENSED PROFESSIONAL ENGINEER
6.5.12

DRAWN BY:	JIM
REVIEWED BY:	DAS
CHECKED BY:	PPB
PROJECT NUMBER:	50003936
JOB NUMBER:	50041016
SITE ADDRESS	

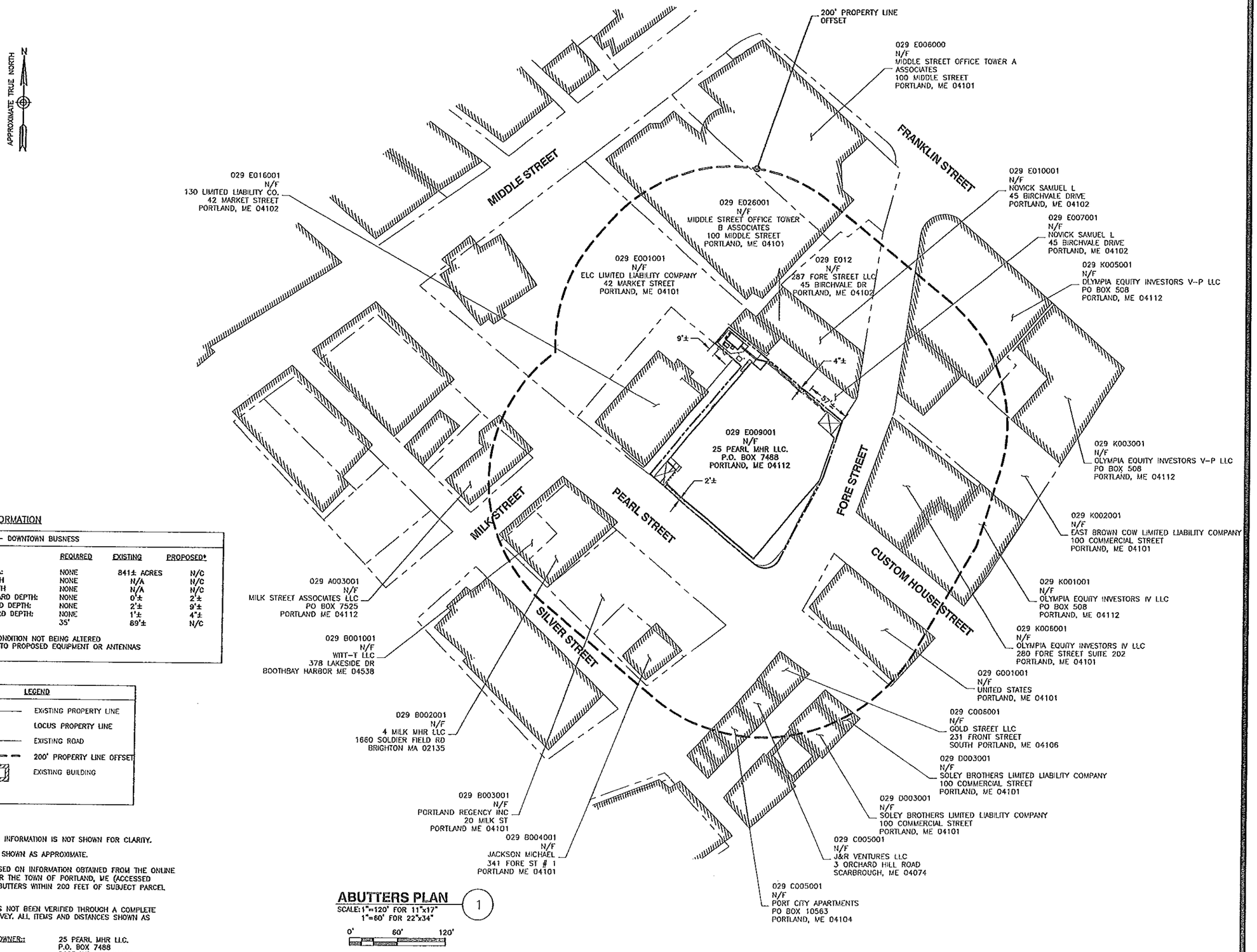
25 PEARL STREET
PORTLAND, ME 04101

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

G-1



ABUTTERS PLAN (1)
SCALE: 1"=120' FOR 11"x17"
1"=60' FOR 22"x34"
0' 60' 120'

ZONING INFORMATION

DISTRICT: B3 – DOWNTOWN BUSINESS

	REQUIRED	EXISTING	PROPOSED*
MIN LOT AREA:	NONE	841± ACRES	N/C
MIN LOT WIDTH	NONE	N/A	N/C
MIN LOT DEPTH	NONE	N/A	N/C
MIN FRONT YARD DEPTH:	NONE	0'±	2'±
MIN SIDE YARD DEPTH:	NONE	2'±	9'±
MIN REAR YARD DEPTH:	NONE	1'±	4"±
MAX HEIGHT:	35'	89'±	N/C

* N/C – CONDITION NOT BEING ALTERED
** DISTANCE TO PROPOSED EQUIPMENT OR ANTENNAS

LEGEND

- EXISTING PROPERTY LINE
- LOCUS PROPERTY LINE
- EXISTING ROAD
- 200' PROPERTY LINE OFFSET
- EXISTING BUILDING

NOTES:

1. SOME EXISTING INFORMATION IS NOT SHOWN FOR CLARITY.
2. NORTH ARROW SHOWN AS APPROXIMATE.
3. PLOT PLAN BASED ON INFORMATION OBTAINED FROM THE ONLINE GIS VIEWER FOR THE TOWN OF PORTLAND, ME (ACCESSED 02-27-12). ABUTTERS WITHIN 200 FEET OF SUBJECT PARCEL ARE SHOWN.
4. PLOT PLAN HAS NOT BEEN VERIFIED THROUGH A COMPLETE BOUNDARY SURVEY. ALL ITEMS AND DISTANCES SHOWN AS APPROXIMATE.

LOCUS PROPERTY OWNER:: 25 PEARL MHR LLC.
P.O. BOX 7488
PORTLAND, ME 04112

at&t Mobility
550 COCHITUATE ROAD
SUITES 13 & 14
FRAMINGHAM, MA 01701

CUSTOM HOUSE GARAGE
SITE NO.: ME2976

SAI communications
22 KEEWAYDIN DRIVE
SALEM, NH 03079

CONSTRUCTION DRAWINGS		
0	06/05/12	FOR CONSTRUCTION
A	04/06/11	FOR COMMENT

Dewberry®
Dewberry Engineers, Inc.
280 SUMMER STREET
10TH FLOOR
BOSTON, MA 02210
PHONE: 617.695.2400
FAX: 617.695.3310

DRAFTSMAN A. MILLS No. 6052 LICENSED PROFESSIONAL ENGINEER COMMONWEALTH OF MASSACHUSETTS
6.5.12

DRAWN BY:	JM
REVIEWED BY:	DAS
CHECKED BY:	PPB
PROJECT NUMBER:	50003936
JOB NUMBER:	50041016
SITE ADDRESS	

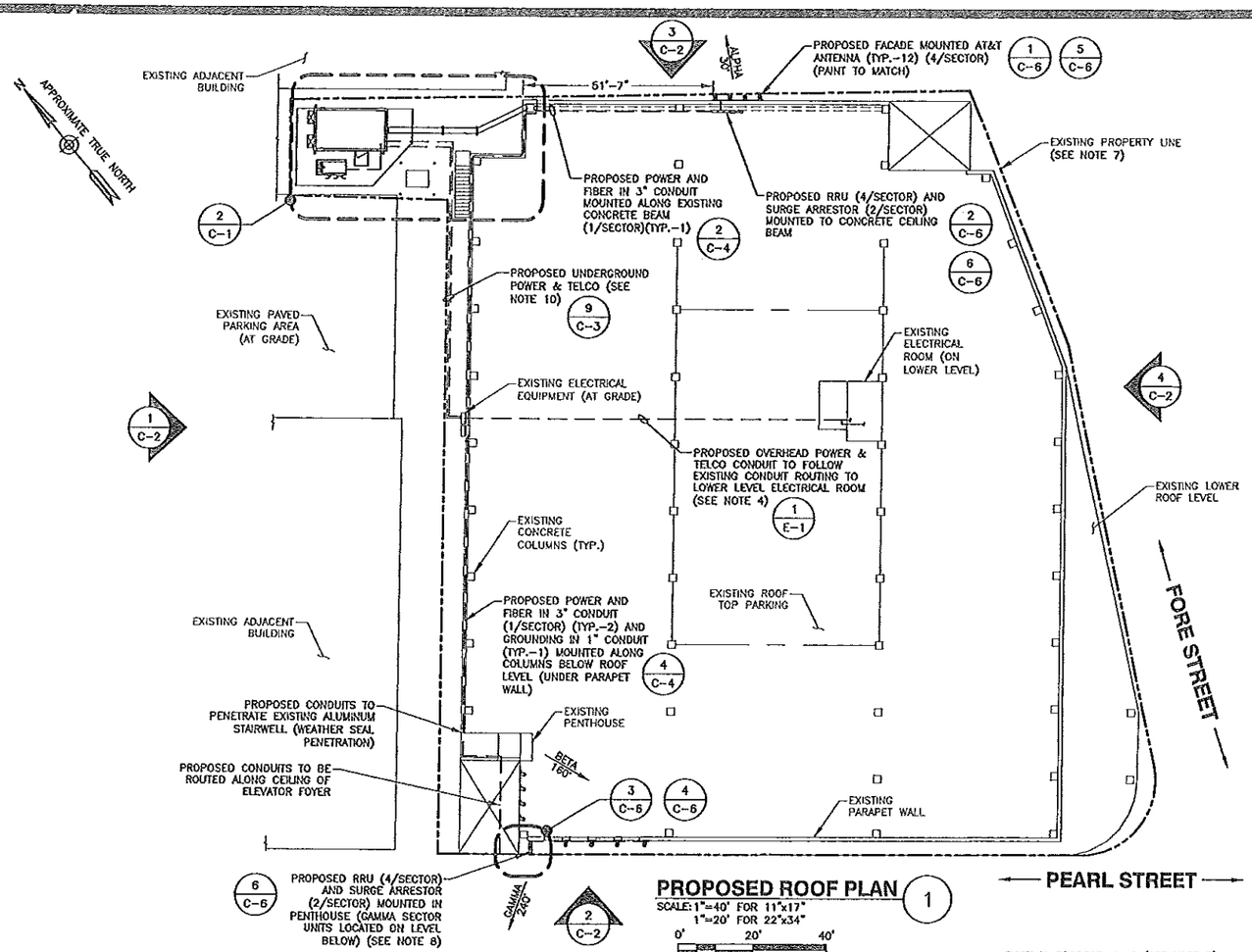
25 PEARL STREET
PORTLAND, ME 04101

SHEET TITLE

ABUTTERS PLAN

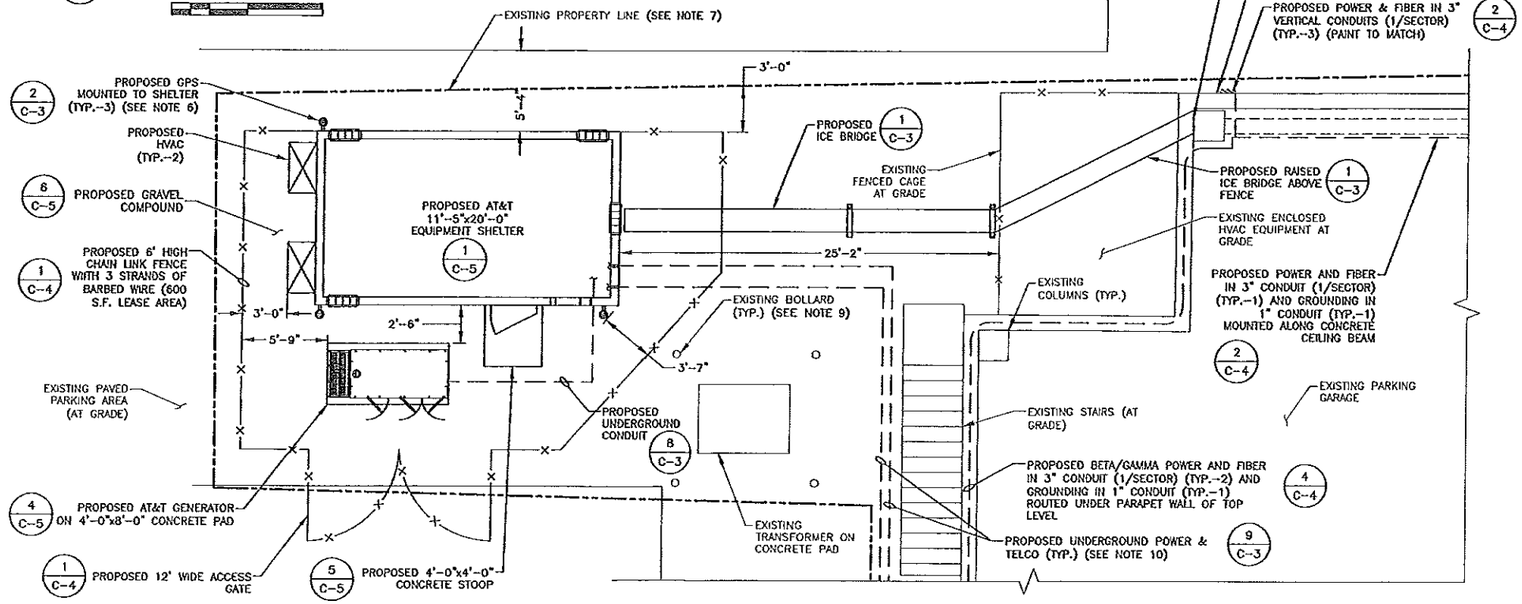
SHEET NUMBER

A–1



PROPOSED ROOF PLAN 1

SCALE: 1"=40' FOR 11"x17"
1"=20' FOR 22"x34"
0' 20' 40'



NOTES:

1. NORTH ARROW SHOWN AS APPROXIMATE.
2. SOME EXISTING & PROPOSED INFORMATION NOT SHOWN FOR CLARITY.
3. PLAN BASED ON CONSTRUCTION DRAWINGS BY DESMAN PARKING ASSOCIATES, DATED 12/15/88, AND FIELD RECONNAISSANCE BY DEWBERRY-GOODKIND ON 09/30/11.
4. POWER & TELCO SERVICE TO UTILIZE METER & TELCO BOARD AVAILABLE IN EXISTING ELECTRICAL ROOM. FINAL DESIGN TO BE COORDINATED WITH UTILITY COMPANY, CM, AND LANDLORD.
5. GENERATOR TO HAVE SELF CONTAINED DIESEL FUEL SOURCE.
6. GPS UNITS TO BE MOUNTED A MINIMUM OF 10' HORIZONTALLY FROM EACH OTHER.
7. PROPERTY LINES ARE BASED ON PROPERTY LINE SURVEY PROVIDED BY COLONIAL SURVEY INC DATED 11/21/11.
8. CONTRACTOR TO CONFIRM LOCATION OF ANY REBAR OR POST TENSION CABLES WHEN CORING OR DRILLING INTO EXISTING CONCRETE.
9. VERIFY SPACE BETWEEN FENCE AND EXISTING BOLLARD IN FIELD. ADJUST FENCE AS NECESSARY.
10. ANY EXISTING UNDERGROUND UTILITIES OR STRUCTURES SHALL BE CONFIRMED PRIOR TO THE INSTALLATION. CONTACT DIG SAFE PRIOR TO CONSTRUCTION.

PROPOSED EQUIPMENT AREA 2

SCALE: 1"=10' FOR 11"x17"
1"=5' FOR 22"x34"
0' 5' 10'

at&t Mobility
550 COCHITUATE ROAD
SUITES 13 & 14
FRAMINGHAM, MA 01701

CUSTOM HOUSE GARAGE
SITE NO.: ME2976

SAI communications
22 KEEWAYDIN DRIVE
SALEM, NH 03079

CONSTRUCTION DRAWINGS		
0	06/05/12	FOR CONSTRUCTION
A	04/06/11	FOR COMMENT

Dewberry®
Dewberry Engineers, Inc.
280 SUMMER STREET
10TH FLOOR
BOSTON, MA 02210
PHONE: 617.695.3400
FAX: 617.695.3410

BRADFORD A. MILLS No. 9052 LICENSED PROFESSIONAL ENGINEER
6.5.12

DRAWN BY:	JIM
REVIEWED BY:	DAS
CHECKED BY:	PPB
PROJECT NUMBER:	50003936
JOB NUMBER:	50041016
SITE ADDRESS	

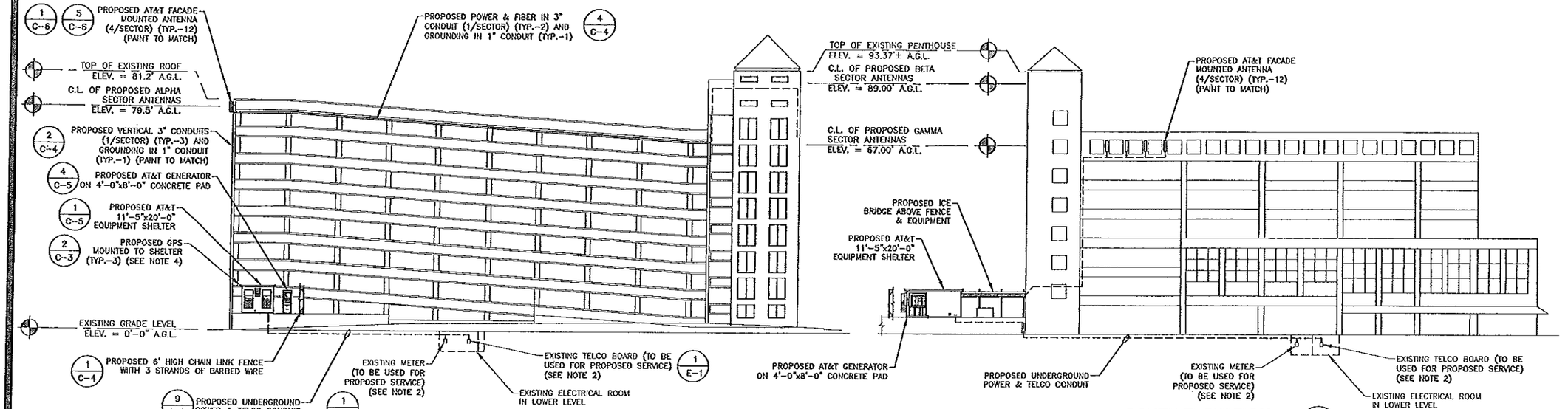
25 PEARL STREET
PORTLAND, ME 04101

SHEET TITLE

PROPOSED SITE PLAN & EQUIPMENT PLAN

SHEET NUMBER

C-1



NOTES:

1. SOME EXISTING & PROPOSED INFORMATION NOT SHOWN FOR CLARITY.
2. POWER & TELCO SERVICE TO UTILIZE EXISTING METER & TELCO SERVICE AVAILABLE IN EXISTING ELECTRICAL ROOM. FINAL DESIGN TO BE COORDINATED WITH UTILITY COMPANY, CM, AND LL.
3. ELEVATION BASED ON PLANS PREPARED BY DESMAN PARKING ASSOCIATES, DATED 12/15/88.
4. GPS UNITS TO BE MOUNTED A MINIMUM OF 10' HORIZONTALLY FROM EACH OTHER.
5. CONTRACTOR TO CONFIRM LOCATION OF ANY REBAR OR POST TENSION CABLES WHEN CORING OR DRILLING INTO EXISTING CONCRETE.
6. ANY EXISTING UNDERGROUND UTILITIES OR STRUCTURES SHALL BE CONFIRMED PRIOR TO THE INSTALLATION. CONTACT DIG SAFE PRIOR TO CONSTRUCTION.

at&t Mobility
550 COCHITUATE ROAD
SUITES 13 & 14
FRAMINGHAM, MA 01701

CUSTOM HOUSE GARAGE
SITE NO.: ME2976

SAI communications
22 KEEWAYDIN DRIVE
SALEM, NH 03079

CONSTRUCTION DRAWINGS		
0	06/05/12	FOR CONSTRUCTION
A	04/06/11	FOR COMMENT

Dewberry®
Dewberry Engineers, Inc.
200 SUMMER STREET
(10TH FLOOR)
BOSTON, MA 02210
PHONE: 617.695.9600
FAX: 617.695.9610

BRADFORD A. MILLS No. 5059 LICENSED ARCHITECT
6.5.12

DRAWN BY:	JIM
REVIEWED BY:	DAS
CHECKED BY:	PPB
PROJECT NUMBER:	50003936
JOB NUMBER:	50041016
SITE ADDRESS	

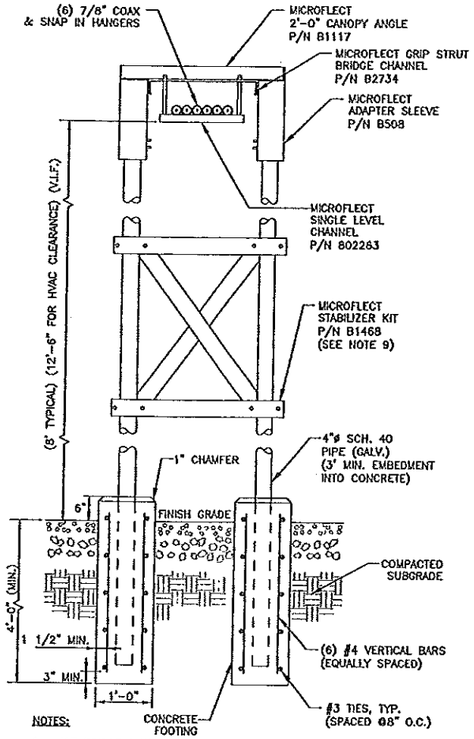
25 PEARL STREET
PORTLAND, ME 04101

SHEET TITLE

ELEVATIONS

SHEET NUMBER

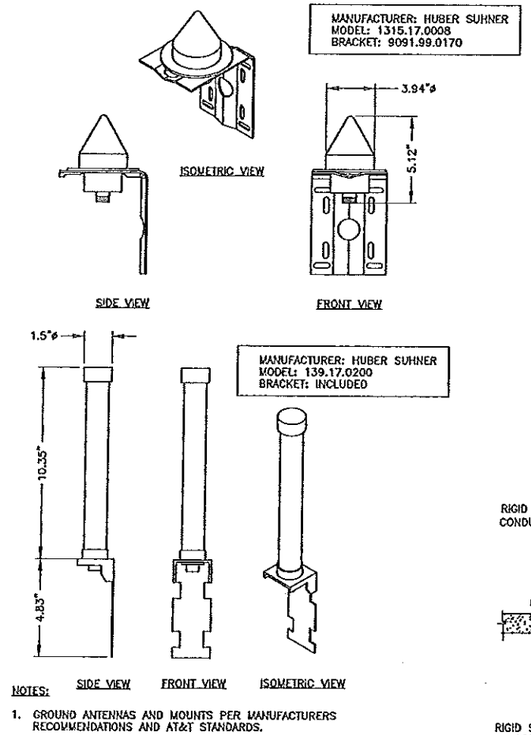
C-2



NOTES:

1. ICE BRIDGE SHALL BE VALMONT GRIP STRUT TRANSMISSION LINE BRIDGE KIT OR APPROVED EQUAL.
2. CABLE SUPPORT SHALL BE VALMONT SINGLE LEVEL CHANNEL OR APPROVED EQUAL.
3. ALL COMPONENTS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
4. CONTRACTOR SHALL DETERMINE REQUIRED QUANTITY OF ALL ICE BRIDGE COMPONENTS.
5. SNAP-IN HANGERS, SPLICE KITS, HINGE KITS, EXTENSION KITS, STIFFENERS, AND OTHER MISCELLANEOUS HARDWARE SHALL BE PROVIDED BY THE SUBCONTRACTOR AS REQUIRED.
6. ICE BRIDGE SHALL BE ROUTED TO ACCOMMODATE THE MINIMUM BENDING RADIUS OF THE COAXIAL CABLE.
7. ICE BRIDGE COMPONENTS SHOWN ARE SCHEMATIC, CONSULT MANUFACTURER FOR EXACT AND CURRENT SPECIFICATIONS.
8. SUPPORT COLUMNS TO BE LOCATED AT 10'-0" O.C. MAX.
9. STABILIZER KIT SHALL BE UTILIZED FOR RAISED ICE BRIDGE POSTS REQUIRED TO CLEAR EXISTING FENCING.

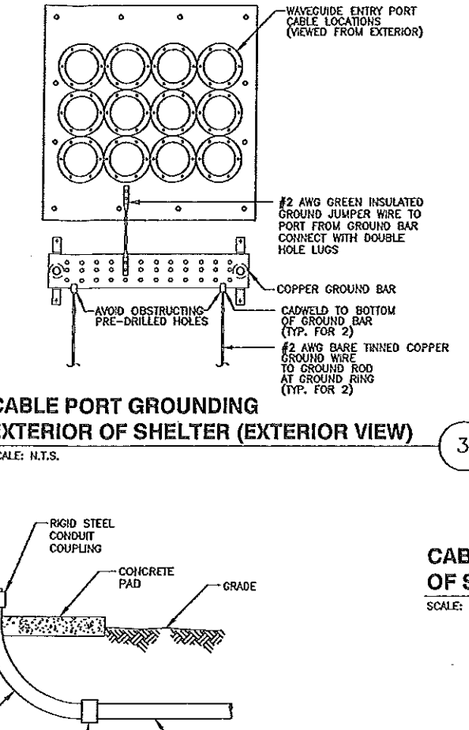
ICE BRIDGE DETAIL (1)
SCALE: N.T.S.



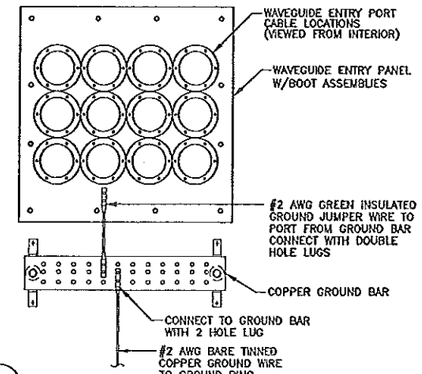
NOTES:

1. GROUND ANTENNAS AND MOUNTS PER MANUFACTURERS RECOMMENDATIONS AND AT&T STANDARDS.
2. FIELD LOCATE GPS ANTENNAS WITH AT&T CM APPROVAL.
3. MOUNT ANTENNAS PER MANUFACTURERS RECOMMENDATIONS.
4. PIPE MOUNT GPS TO CABLE BRIDGE WITH REQUIRED HARDWARE.

GPS ANTENNAS (2)
SCALE: N.T.S.



CABLE PORT GROUNDING EXTERIOR OF SHELTER (EXTERIOR VIEW) (3)
SCALE: N.T.S.

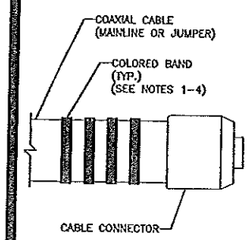


NOTE:

1. CONTRACTOR SHALL INSTALL AS SHOWN UNLESS GROUND BAR IS PREINSTALLED BY SHELTER MANUFACTURER.

CABLE PORT GROUNDING ON INTERIOR OF SHELTER (INTERIOR VIEW) (4)
SCALE: N.T.S.

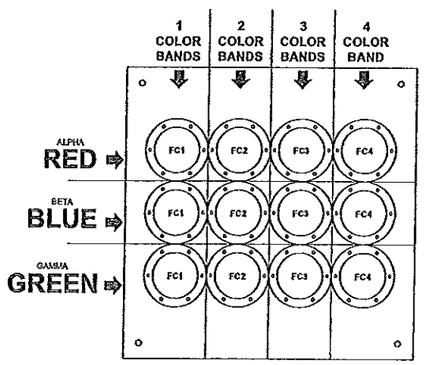
UNDERGROUND CONDUIT STUB-UP DETAIL (5)
SCALE: N.T.S.



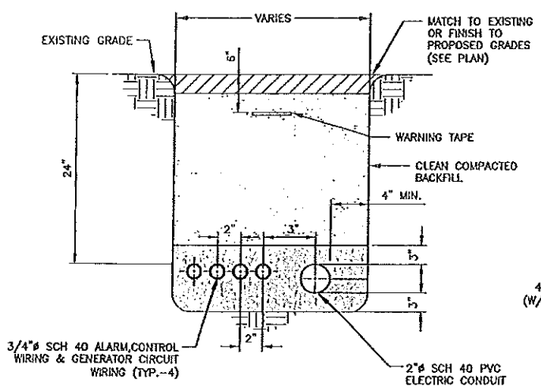
NOTES:

1. COLOR CODING SHALL BE PLACED ON BOTH ENDS OF ALL MAINLINE COAXIAL CABLES AND ALL JUMPER CABLES NEAR THE CONNECTORS. COLOR CODING SHALL ALSO BE PLACED ON EACH MAINLINE COAX ON THE EXTERIOR OF THE SHELTER NEAR THE CABLE PORT.
2. COLORED TAPE SHALL BE MINIMUM 3/4" WIDE.
3. THE SPACING BETWEEN THE COLORED BANDS SHALL NOT BE LESS THAN THE THICKNESS OF THE COLORED TAPE.
4. COLOR AND QUANTITY OF COLORED BANDS SHALL BE AS SPECIFIED IN THE RF SCHEDULE.

CABLE COLOR CODING DETAIL (6)
SCALE: N.T.S.



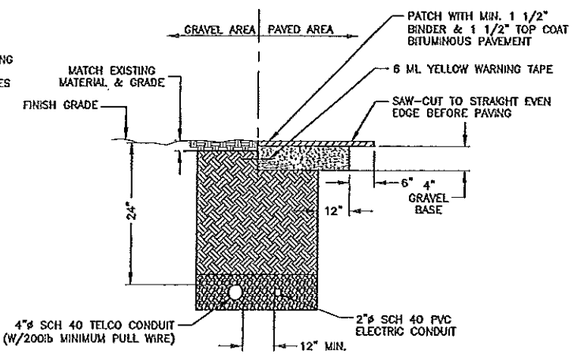
COAX COLOR CODING AND LABELING DETAIL (7)
SCALE: N.T.S.



NOTES:

1. IF FREE OF ORGANIC OR OTHER DELETERIOUS MATERIAL, EXCAVATED MATERIAL MAY BE USED FOR BACKFILL.
2. IF NOT, PROVIDE CLEAN, COMPACTIBLE MATERIAL. COMPACT IN 8" LIFTS. REMOVE ANY LARGE ROCKS PRIOR TO BACKFILLING. CONTRACTOR TO VERIFY LOCATION OF EXISTING U/G UTILITIES PRIOR TO DIGGING.
3. IF CURRENT AS-BUILT DRAWINGS ARE NOT AVAILABLE CONTRACTOR SHALL HAND DIG U/G TRENCHING.

GENERATOR SERVICE TRENCH CONDUIT (8)
SCALE: N.T.S.



NOTES:

1. IF FREE OF ORGANIC OR OTHER DELETERIOUS MATERIAL, EXCAVATED MATERIAL MAY BE USED FOR BACKFILL.
2. IF NOT, PROVIDE CLEAN, COMPACTIBLE MATERIAL. COMPACT IN 8" LIFTS. REMOVE ANY LARGE ROCKS PRIOR TO BACKFILLING. CONTRACTOR TO VERIFY LOCATION OF EXISTING U/G UTILITIES PRIOR TO DIGGING.
3. IF CURRENT AS-BUILT DRAWINGS ARE NOT AVAILABLE CONTRACTOR SHALL HAND DIG U/G TRENCHING.
4. CONCRETE ENCASE CONDUIT WHEN TRENCHING UNDER SITE ACCESS ROAD.

JOINT SERVICE TRENCH BURIED CONDUIT (ELECTRIC/TELEPHONE) (9)
SCALE: N.T.S.

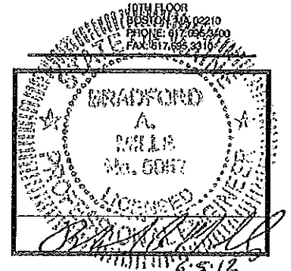
at&t Mobility
550 COCHITUATE ROAD
SUITES 13 & 14
FRAMINGHAM, MA 01701

CUSTOM HOUSE GARAGE
SITE NO.: ME2976

SAI communications
22 KEEWAYDIN DRIVE
SALEM, NH 03079

CONSTRUCTION DRAWINGS		
0	06/05/12	FOR CONSTRUCTION
A	04/06/11	FOR COMMENT

Dewberry®
Dewberry Engineers, Inc.
280 SUMMER STREET
10TH FLOOR
BOSTON, MA 02210
PHONE: 617.695.4700
FAX: 617.695.3310



DRAWN BY:	JIM
REVIEWED BY:	DAS
CHECKED BY:	PPB
PROJECT NUMBER:	50003936
JOB NUMBER:	50041016
SITE ADDRESS	

25 PEARL STREET
PORTLAND, ME 04101

SHEET TITLE

CONSTRUCTION DETAILS-1

SHEET NUMBER

C-3

2-DIST	B.I.N.
6	B82

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
STRUCTURES INSPECTION FIELD REPORT
SPECIAL MEMBER INSPECTION

BR. DEPT. NO.
B-16-295

CITY/TOWN	8 - STRUCTURES NO.	11 - MILE POINT	90 – ROUTINE INSP. DATE	93 -- *SPEC. MEMB. INSP. DATE
Boston	B16295-B82-PRI-BLD		10/15/2008	4/4/2012

07 -- FACILITY CARRIED	MEMORIAL NAME / LOCAL NAME	27 - YR BUILT	106 - YR REBUILT	*YR REHAB'D (NON 106)
Interstate 90 – Eastbound & Westbound	Prudential Tunnel	0000	0000	0000

06 -- FEATURES INTERSECTED	26 – FUNCTIONAL CLASS	TEAM LEADER
Shaws Market	Principal Arterial-Interstate-Urban	A. Kurian, P.E.

INSPECTION ENGINEER	22 -- OWNER	21 -- MAINTAINER	43a - CONSTRUCTION TYPE	QA/QC
M. P. Griffin, P.E.	Private	Private	Cast In Place	D. Reip, P.E.

CONTRACT(S)	WEATHER	TEMP. (air)	43b -- STRUCTURE TYPE	TEAM MEMBERS
	Varied	Varied	Building	S. Gambarov, E. Mena

SPECIAL MEMBER(S):

	MEMBER	CONDITION PREVIOUS (0-9)	CONDITION PRESENT (0-9)	Deficiencies	COMMENTS
A	ITEM 62c.17 – Conc. Panel Utility Sup	3	3	S/A	See remarks in comments section.
B					
C					
D					
E					

List of field tests performed:

	I-62a	I-62b	I-62c	I-62d	I-62e	I-62f	I-62g
(Overall Previous Condition)			4				
(Overall Current Condition)			4				

DEFICIENCY: A defect in a structure that requires corrective action.

CATEGORIES OF DEFICIENCIES:

C-H = Critical-Hazard Deficiency - A deficiency in a component or element of a tunnel that poses an extreme hazard or unsafe condition to the public, but does not impair the structural integrity of the tunnel. Examples include but are not limited to: Loose concrete hanging down over traffic, loose bolts supporting ceiling panels, missing section of roadway joint, etc.

C-S = Critical-Structural Deficiency - A deficiency in a structural element in a tunnel that poses an extreme unsafe condition to the public due to a failure or an imminent failure of the element that will affect the structural integrity of the tunnel.

M = Minor Deficiency -- Deficiencies which are minor in nature, generally do not impact the structural integrity of the tunnel and could easily be repaired. Examples include but are not limited to: Spalled concrete, minor potholes, minor corrosion to steel, clogged drainage, etc.

S = Severe/Major Deficiency -- Deficiencies which are more extensive in nature and need more planning and effort to repair. Examples include but are not limited to: moderate to major deterioration in concrete, exposed and corroding rebar, considerable settlement, considerable leaking, moderate to extensive corrosion to steel with measurable loss of section, etc.

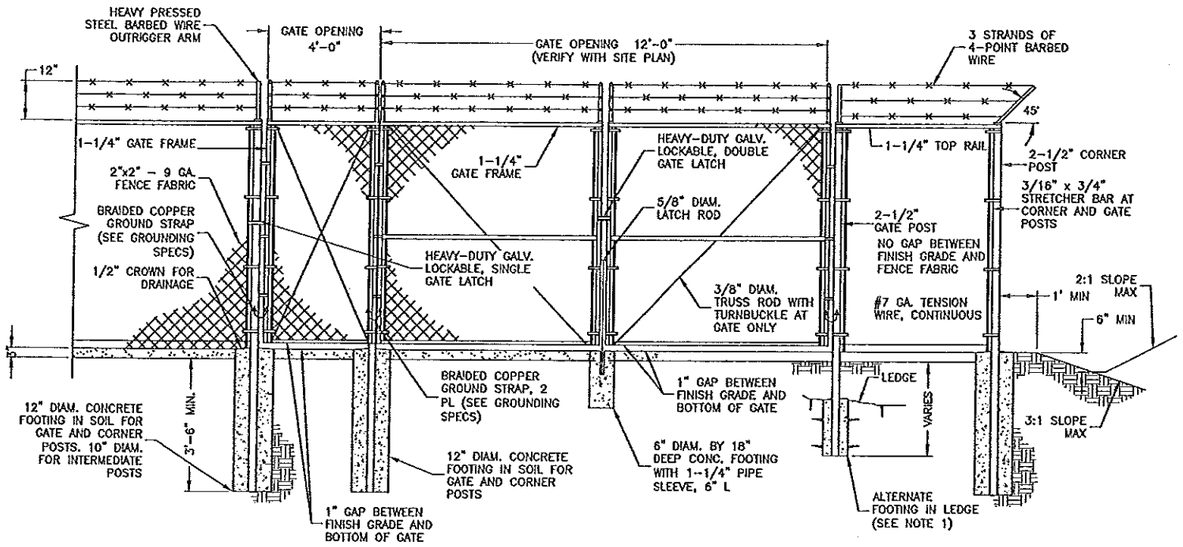
URGENCY OF REPAIR:

I = Immediate - (Inspector(s) stay at the bridge until District Maintenance crew or the responsible Agency crew (if not a State bridge) show up and corrective action is taken).

A = ASAP -- [Action will be taken by District Maintenance Engineer or the Responsible Agency (if not a State owned bridge) upon receipt of the Inspection Report].

P = Prioritize – [Shall be prioritized by District Maintenance Engineer or the Responsible Agency (if not a State owned bridge) and repairs made when funds and/or manpower available].

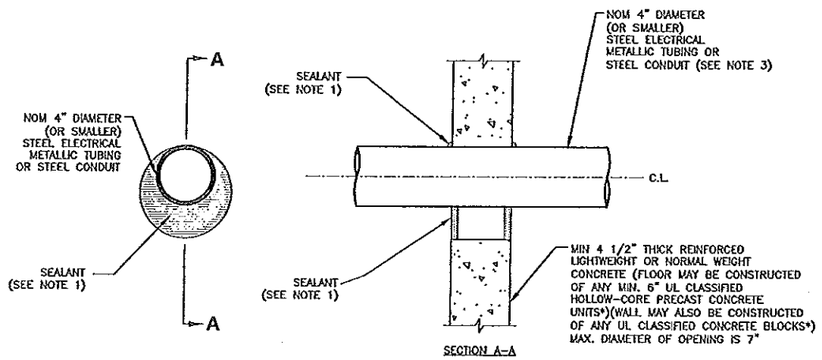
X=UNKNOWN N=NOT APPLICABLE H=HIDDEN/INACCESSIBLE R=REMOVED



FENCE NOTES:

1. ALTERNATE FOOTINGS FOR ALL FENCE POSTS IN LEDGE: IF LEDGE IS ENCOUNTERED AT GRADE, OR AT A DEPTH SHALLOWER THAN 3'-6", CORE DRILL AN 8" DIA HOLE 18" INTO THE LEDGE. CENTER POST IN THE HOLE AND FILL WITH CONCRETE OR GROUT. IF LEDGE IS BELOW FINISH GRADE, COAT BACKFILLED SECTION OF POST WITH COAL TAR, AND BACKFILL WITH WELL-DRAINING GRAVEL.
2. ATTACH EACH GATE WITH 1-1/2 PAIR OF NON-LIFT-OFF TYPE, MALLEABLE IRON OR FORGING, PIN-TYPE HINGES. ASSEMBLIES SHALL ALLOW FOR 180° OF GATE TRAVEL.

GATE & FENCE DETAIL 1
SCALE: N.T.S.



SECTION A-A

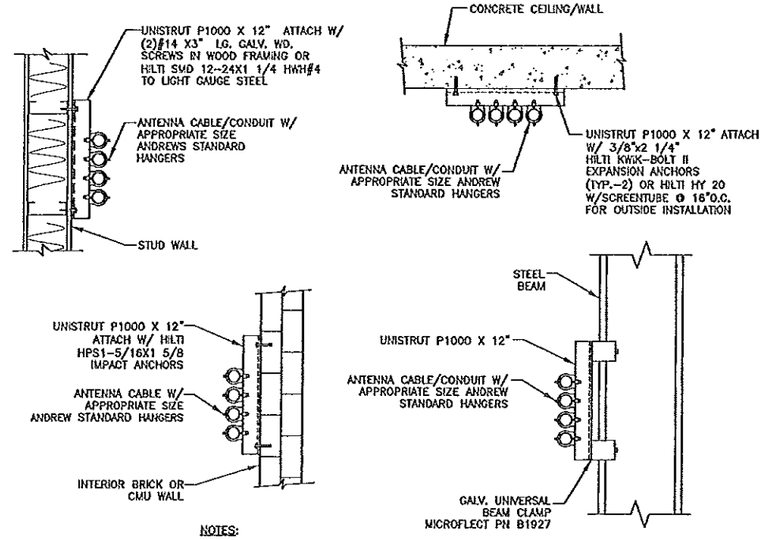
UL SYSTEM NO. C-AJ-1259
F RATING - 3 HR.
T RATING - 0 HR.

NOTES:

1. FILL, VOID OR CAVITY MATERIAL* - SEALANT - MIN. 1/2" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTH SURFACES OF FLOOR OR WALL. AT THE POINT CONTACT LOCATION BETWEEN PENETRATING ITEM AND CONCRETE, A MIN. 1/4" THICK BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE CONCRETE/ PENETRATING ITEM INTERFACE ON BOTH SIDES OF FLOOR OR WALL.
2. FORMING MATERIAL - (OPTIONAL, NOT SHOWN) - MINERAL WOOL BATT PACKING MATERIAL OR POLYURETHANE BACKER ROD FRICTION FITTED INTO OPENING AND RECESSED FROM FLOOR OR WALL SURFACES AS REQUIRED TO ACCOMMODATE THICKNESS OF FILL MATERIAL.
3. ONE CONDUIT TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN THE CONDUIT AND THE PERIPHERY OF THE OPENING SHALL BE A MIN. OF 0" (POINT OF CONTACT) TO A MAX. OF 3". CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY.

* BEARING THE UL CLASSIFICATION MARK.

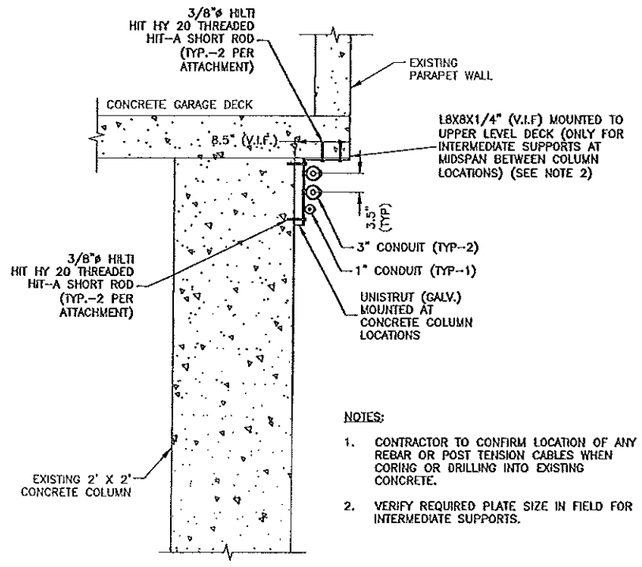
CORING DETAIL 3
SCALE: N.T.S.



NOTES:

1. ALL COAX SUPPORT SPACING: 4'-0" MAX.
2. ALL CONDUIT SUPPORT SPACING: 10'-0" MAX.
3. CONTRACTOR TO CONFIRM LOCATION OF ANY REBAR OR POST TENSION CABLES WHEN CORING OR DRILLING INTO EXISTING CONCRETE.

CONDUIT SUPPORT DETAIL 2
SCALE: N.T.S.



ELEVATION

NOTES:

1. CONTRACTOR TO CONFIRM LOCATION OF ANY REBAR OR POST TENSION CABLES WHEN CORING OR DRILLING INTO EXISTING CONCRETE.
2. VERIFY REQUIRED PLATE SIZE IN FIELD FOR INTERMEDIATE SUPPORTS.

BETA/GAMMA CONDUIT SUPPORT DETAIL 4
SCALE: N.T.S.

at&t Mobility
550 COCHITUATE ROAD
SUITES 13 & 14
FRAMINGHAM, MA 01701

CUSTOM HOUSE GARAGE
SITE NO.: ME2976

SAI communications
22 KEEWAYDIN DRIVE
SALEM, NH 03079

CONSTRUCTION DRAWINGS		
0	06/05/12	FOR CONSTRUCTION
A	04/06/11	FOR COMMENT

Dewberry®
Dewberry Engineers, Inc.
200 BERKELEY STREET
10TH FLOOR
BOSTON, MA 02210
PHONE: 617.695.3000
FAX: 617.695.3100

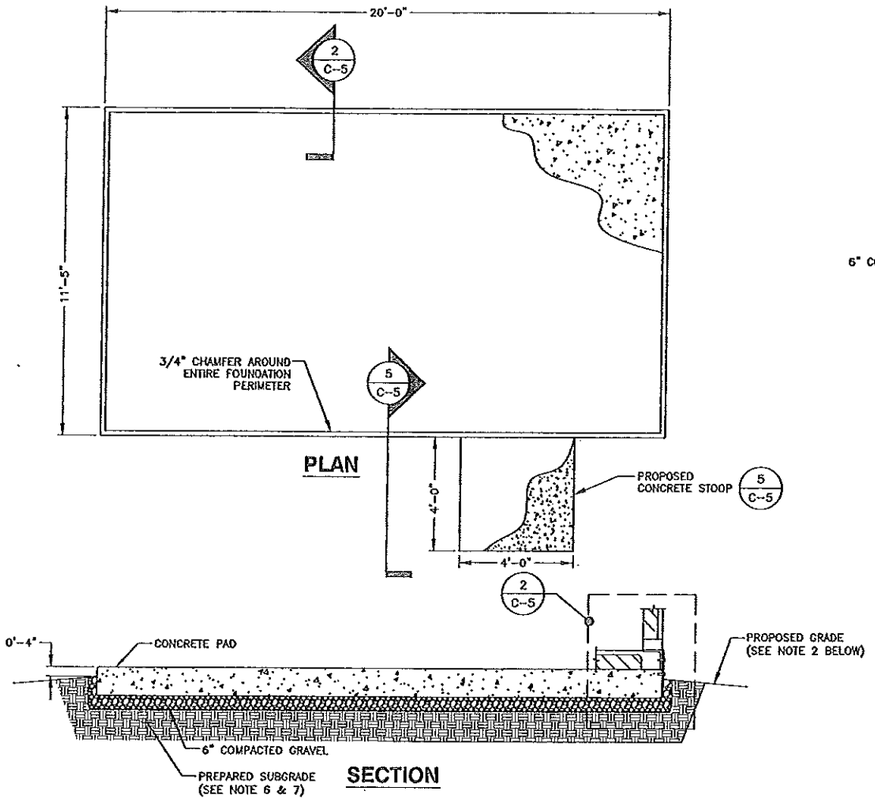
REGISTERED PROFESSIONAL ENGINEER
BRIAN CHRISTOPHER A. MILLS No. 6052 LICENSED
6-5-12

DRAWN BY:	JIM
REVIEWED BY:	DAS
CHECKED BY:	PPB
PROJECT NUMBER:	50003936
JOB NUMBER:	50041016
SITE ADDRESS	

25 PEARL STREET
PORTLAND, ME 04101

SHEET TITLE
CONSTRUCTION DETAILS-II

SHEET NUMBER
C-4



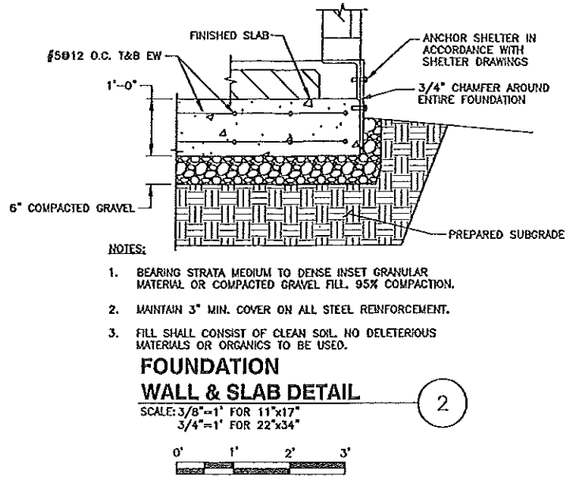
NOTES:

1. CONTRACTOR TO VERIFY FINAL SHELTER DIMENSIONS PRIOR TO CONSTRUCTION OF FOUNDATION.
2. GRADE SHALL SLOPE AWAY FROM THE CONCRETE PAD TO ALLOW FOR PROPER WATER RUN OFF.
3. ANCHOR SHELTER TO FOUNDATION PER SHELTER MANUFACTURER RECOMMENDATIONS.
4. IF BEDROCK IS ENCOUNTERED @ A SHALLOW DEPTH USE DETAIL 3, THIS SHEET.
5. BEARING STRATA MEDIUM TO DENSE INSET GRANULAR MATERIAL OR COMPACTED GRAVEL FILL. 95% COMPACTION.
6. SUBGRADE & FILL SHALL CONSIST OF CLEAN SOIL. NO DELETERIOUS MATERIALS OR ORGANICS TO BE USED.
7. ANY EXISTING UNDER UTILITIES OR STRUCTURES SHALL BE CONFIRMED PRIOR TO THE INSTALLATION OF ANY EQUIPMENT. CONTACT DIG SAFE PRIOR TO CONSTRUCTION.

CONCRETE PAD FOUNDATION 1

SCALE: 3/16"=1' FOR 11"x17"
3/8"=1' FOR 22"x34"

0' 2' 4' 6'



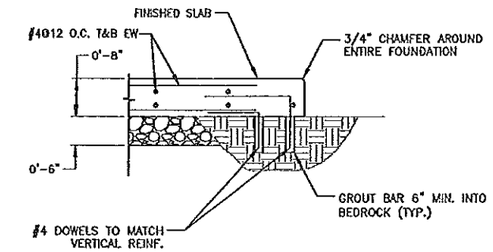
NOTES:

1. BEARING STRATA MEDIUM TO DENSE INSET GRANULAR MATERIAL OR COMPACTED GRAVEL FILL. 95% COMPACTION.
2. MAINTAIN 3" MIN. COVER ON ALL STEEL REINFORCEMENT.
3. FILL SHALL CONSIST OF CLEAN SOIL. NO DELETERIOUS MATERIALS OR ORGANICS TO BE USED.

FOUNDATION WALL & SLAB DETAIL 2

SCALE: 3/8"=1' FOR 11"x17"
3/4"=1' FOR 22"x34"

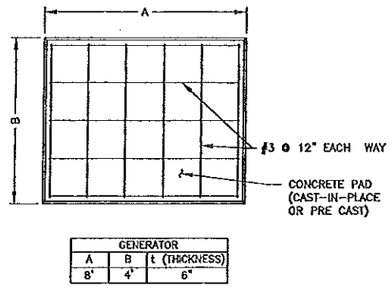
0' 1' 2' 3'



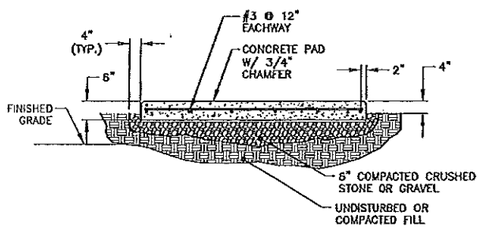
FOUNDATION SLAB DETAIL @ BEDROCK 3

SCALE: 3/8"=1' FOR 11"x17"
3/4"=1' FOR 22"x34"

0' 1' 2' 3'



GENERATOR		
A	B	t (THICKNESS)
8'	4'	6"

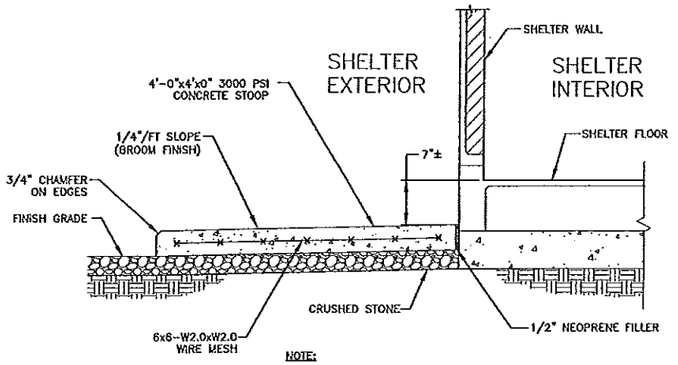


NOTES:

1. USE GALVANIZED HILTI EXPANSION ANCHORS OR, APPROVED EQUAL, FOR EQUIPMENT ANCHORAGE.
2. FOR SIZE AND LOCATION OF ANCHORS AND OTHER REQUIREMENTS, SEE EQUIPMENT VENDOR DRAWINGS.
3. BEARING STRATA MEDIUM TO DENSE INSET GRANULAR MATERIAL OR COMPACTED GRAVEL FILL. 95% COMPACTION.
4. FILL SHALL CONSIST OF CLEAN SOIL. NO DELETERIOUS MATERIALS OR ORGANICS TO BE USED.

OUTDOOR PAD FOR MINOR EQUIPMENT 4

SCALE: N.T.S.



NOTE:

1. VERIFY DOOR LOCATION WITH SHELTER MANUFACTURER PRIOR TO CONSTRUCTION.

CONCRETE STOOP SECTION 5

SCALE: N.T.S.

1. BEARING STRATA MEDIUM TO DENSE INSET GRANULAR MATERIAL OR COMPACTED GRAVEL FILL. 95% COMPACTION.
2. FILL SHALL CONSIST OF CLEAN SOIL. NO DELETERIOUS MATERIALS OR ORGANICS TO BE USED.

GRAVEL YARD DETAIL 6

SCALE: N.T.S.

at&t Mobility
550 COCHITUATE ROAD
SUITES 13 & 14
FRAMINGHAM, MA 01701

CUSTOM HOUSE GARAGE
SITE NO.: ME2976

SAI communications
22 KEEWAYDIN DRIVE
SALEM, NH 03079

CONSTRUCTION DRAWINGS		
0	06/05/12	FOR CONSTRUCTION
A	04/06/11	FOR COMMENT

Dewberry®
Dewberry Engineers, Inc.
1240 SOLDIER STREET
10TH FLOOR
BOSTON, MA 02210
PHONE: 617.695.9100
FAX: 617.695.3310

COMMONWEALTH OF MASSACHUSETTS
A. MILLS
No. 5002
REGISTERED PROFESSIONAL ENGINEER
6/5/12

DRAWN BY:	JIM
REVIEWED BY:	DAS
CHECKED BY:	PPB
PROJECT NUMBER:	50003936
JOB NUMBER:	50041016
SITE ADDRESS	

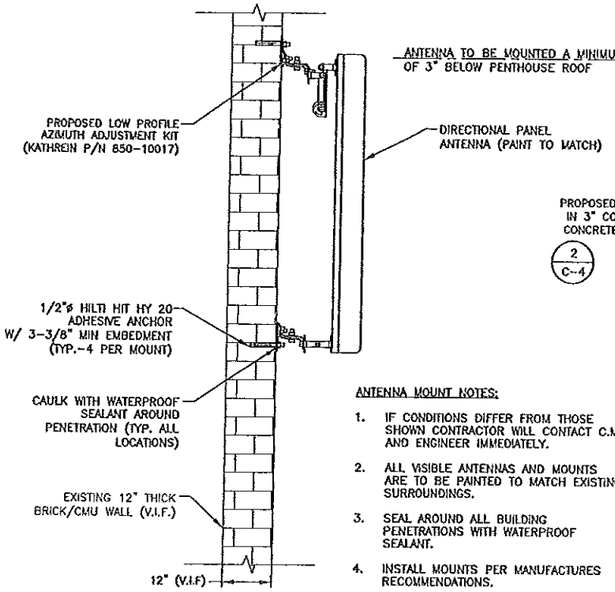
25 PEARL STREET
PORTLAND, ME 04101

SHEET TITLE

CONSTRUCTION DETAILS–III

SHEET NUMBER

C–5

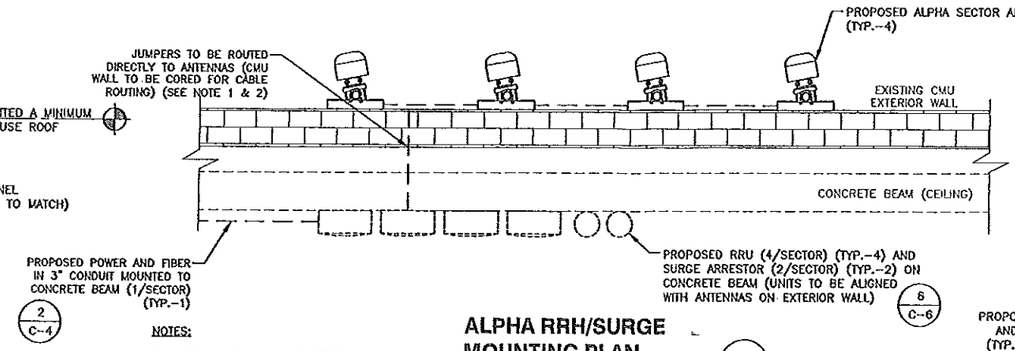


ANTENNA MOUNT NOTES:

1. IF CONDITIONS DIFFER FROM THOSE SHOWN CONTRACTOR WILL CONTACT C.M. AND ENGINEER IMMEDIATELY.
2. ALL VISIBLE ANTENNAS AND MOUNTS ARE TO BE PAINTED TO MATCH EXISTING SURROUNDINGS.
3. SEAL AROUND ALL BUILDING PENETRATIONS WITH WATERPROOF SEALANT.
4. INSTALL MOUNTS PER MANUFACTURES RECOMMENDATIONS.

FACADE MOUNT ANTENNA SECTION (1)

SCALE: N.T.S.



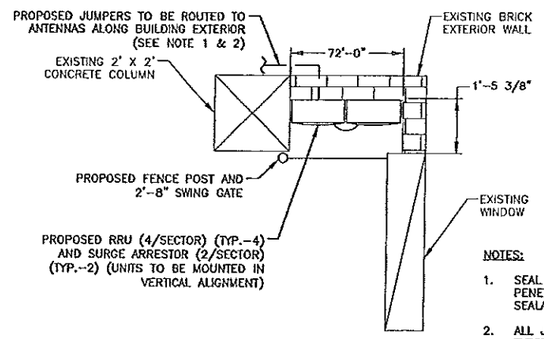
NOTES:

1. SEAL AROUND ALL BUILDING PENETRATIONS WITH WATERPROOF SEALANT.
2. ALL JUMPERS ON BUILDING EXTERIOR TO BE PAINTED TO MATCH.

ALPHA RRH/SURGE MOUNTING PLAN (2)

SCALE: 1/4"=1' FOR 11"x17"
1/2"=1' FOR 22"x34"

0' 1' 2' 4'



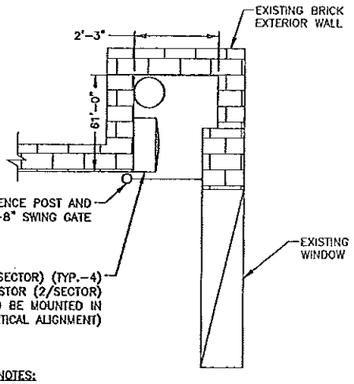
NOTES:

1. SEAL AROUND ALL BUILDING PENETRATIONS WITH WATERPROOF SEALANT.
2. ALL JUMPERS ON BUILDING EXTERIOR TO BE PAINTED TO MATCH.

GAMMA RRH/SURGE MOUNTING PLAN (4)

SCALE: 1/4"=1' FOR 11"x17"
1/2"=1' FOR 22"x34"

0' 1' 2' 4'



NOTES:

1. SEAL AROUND ALL BUILDING PENETRATIONS WITH WATERPROOF SEALANT.
2. ALL JUMPERS ON BUILDING EXTERIOR TO BE PAINTED TO MATCH.

BETA RRH/SURGE MOUNTING PLAN (3)

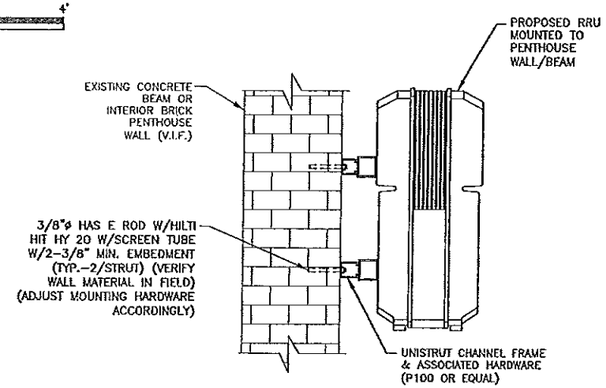
SCALE: 1/4"=1' FOR 11"x17"
1/2"=1' FOR 22"x34"

0' 1' 2' 4'

ANTENNA AND COAXIAL CABLE BILL OF MATERIALS											
SECTOR	STATUS	COLOR CODE	ANTENNA	COAX CABLE FEED LOC	AZIMUTH (TRUE NORTH)	RAD CENTER	CABLE LENGTH	CABLE	MECHANICAL DOWNTILT	RRU	DIPLEXER
IA	PROPOSED	IR & IIR	POWERWAVE P65-15-XLH-RR	BOTTOM	TBD	79.5'	2 @ 155'	FIBER	0°	(1) ERICSSON RRUS-11	--
IIA	PROPOSED	IIIR & IVR	POWERWAVE P65-15-XLH-RR	BOTTOM	TBD	79.5'	--	FIBER	0°	(1) ERICSSON RRUS-11	--
IIIA	PROPOSED	VR & VIR	POWERWAVE P65-15-XLH-RR	BOTTOM	TBD	79.5'	--	FIBER	0°	(1) ERICSSON RRUS-11	--
IIIA	PROPOSED	VR & VIR	POWERWAVE P65-15-XLH-RR	BOTTOM	TBD	79.5'	--	FIBER	0°	(1) ERICSSON RRUS-11	--
IB	PROPOSED	IB & IIB	POWERWAVE P65-15-XLH-RR	BOTTOM	TBD	89.0'	2 @ 341'	FIBER	0°	(1) ERICSSON RRUS-11	--
IIB	PROPOSED	IIIB & IVB	POWERWAVE P65-15-XLH-RR	BOTTOM	TBD	89.0'	--	FIBER	0°	(1) ERICSSON RRUS-11	--
IIIB	PROPOSED	VB & VIB	POWERWAVE P65-15-XLH-RR	BOTTOM	TBD	89.0'	--	FIBER	0°	(1) ERICSSON RRUS-11	--
IIIB	PROPOSED	VB & VIB	POWERWAVE P65-15-XLH-RR	BOTTOM	TBD	89.0'	--	FIBER	0°	(1) ERICSSON RRUS-11	--
IG	PROPOSED	IG & IIG	POWERWAVE P65-15-XLH-RR	BOTTOM	TBD	67.0'	2 @ 387'	FIBER	0°	(1) ERICSSON RRUS-11	--
IIG	PROPOSED	IIIG & IVG	POWERWAVE P65-15-XLH-RR	BOTTOM	TBD	67.0'	--	FIBER	0°	(1) ERICSSON RRUS-11	--
IIIG	PROPOSED	VG & VIG	POWERWAVE P65-15-XLH-RR	BOTTOM	TBD	67.0'	--	FIBER	0°	(1) ERICSSON RRUS-11	--
IIIG	PROPOSED	VG & VIG	POWERWAVE P65-15-XLH-RR	BOTTOM	TBD	67.0'	--	FIBER	0°	(1) ERICSSON RRUS-11	--
TOTAL QUAN.	--	--	12	--	--	--	1,766'	--	--	12	--

ANTENNA AND COAXIAL CABLE B.O.M. (5)

SCALE: N.T.S.



NOTES:

1. CONTRACTOR TO SEAL & WEATHERPROOF ALL PENETRATIONS.
2. INSTALL RRU'S PER MANUFACTURES RECOMMENDATIONS.
3. CONTRACTOR SHALL VERIFY EXISTING CONDITION AND DEPTH OF EMBEDMENT AVAILABLE.
4. MOUNTING TYPICAL FOR SURGE ARRESTOR. MOUNT ACCORDING TO MANUFACTURER SPECIFICATIONS

TYPICAL RRU MOUNTING DETAIL (6)

SCALE: N.T.S.

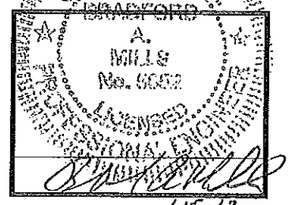
at&t Mobility
550 COCHITUATE ROAD
SUITES 13 & 14
FRAMINGHAM, MA 01701

CUSTOM HOUSE GARAGE
SITE NO.: ME2976

SAI communications
22 KEEWAYDIN DRIVE
SALEM, NH 03079

CONSTRUCTION DRAWINGS		
0	06/05/12	FOR CONSTRUCTION
A	04/06/11	FOR COMMENT

Dewberry®
Dewberry Engineers, Inc.
200 SUMMER STREET
10TH FLOOR
BOSTON, MA 02210
PHONE: 617.695.3400
FAX: 617.695.3410



DRAWN BY:	JIM
REVIEWED BY:	DAS
CHECKED BY:	PPB
PROJECT NUMBER:	50003936
JOB NUMBER:	50041016
SITE ADDRESS	

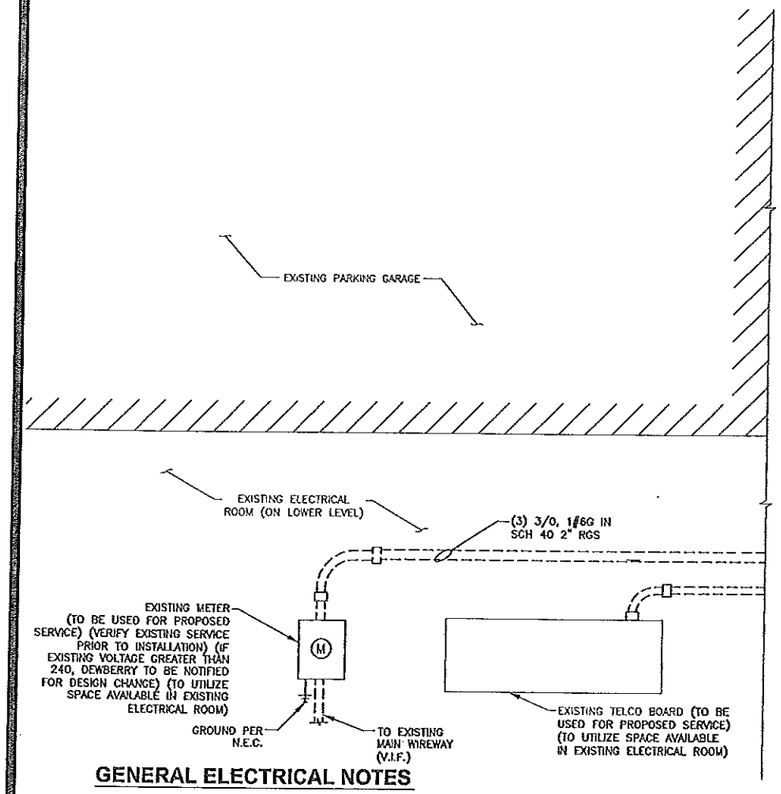
25 PEARL STREET
PORTLAND, ME 04101

SHEET TITLE

ANTENNA B.O.M. & ANTENNA DETAILS

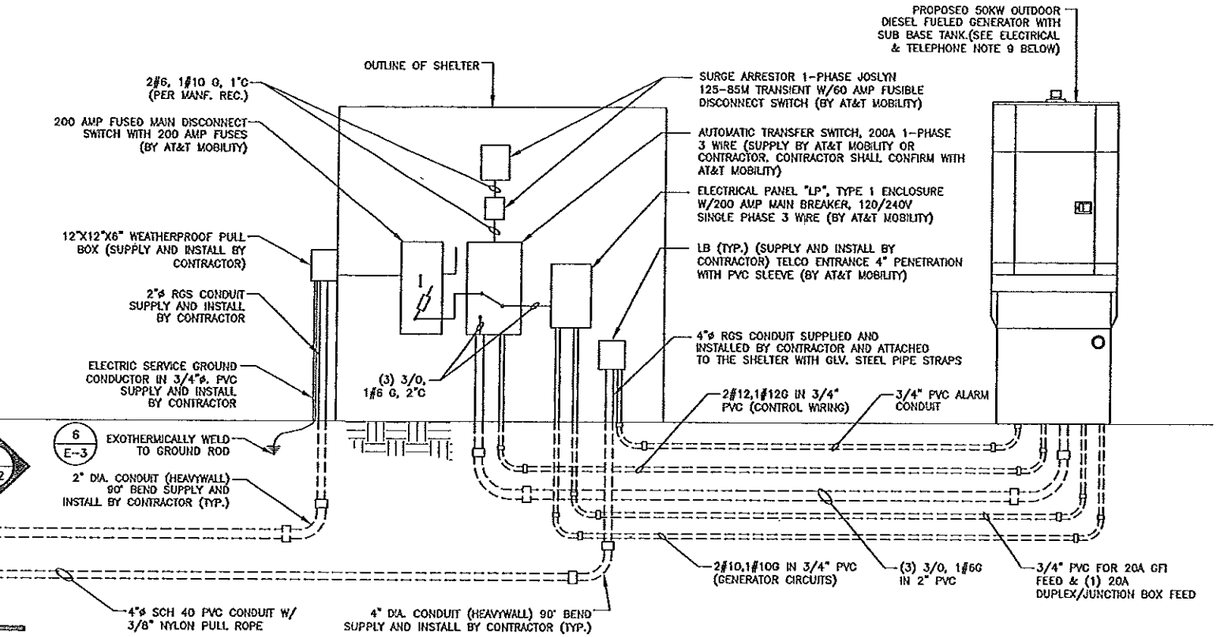
SHEET NUMBER

C-6



GENERAL ELECTRICAL NOTES

1. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH ALL GOVERNING STATE, COUNTY AND LOCAL CODES, O.S.H.A., NEC, AT&T MOBILITY SPECIFICATIONS, AND THE SPECIFICATIONS DETAILED IN THESE PLANS.
2. SUBMITTAL OF BID INDICATES CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.
3. CONTRACTOR SHALL PERFORM ALL VERIFICATION, OBSERVATION, TESTS, AND EXAMINATION WORK PRIOR TO THE ORDERING OF THE ELECTRICAL EQUIPMENT AND THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE PROJECT MANAGER LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT, AND DISCREPANCIES.
4. THESE PLANS ARE DIAGRAMMATIC ONLY, FOLLOW AS CLOSELY AS POSSIBLE. CONTRACTOR SHALL ENSURE THAT ACCESS TO EQUIPMENT IS MAINTAINED IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS AND ALL APPLICABLE CODES.
5. EACH CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY TAGGED IN EACH PANELBOARD, PULLBOX, J-BOX, SWITCH BOX, ETC., IN COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)
6. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION, CONSTRUCTION TOOLS, TRANSPORTATION, ETC., FOR A COMPLETE AND PROPERLY OPERATIVE SYSTEM, ENERGIZED THROUGHOUT AND AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.
7. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORY AND SHALL BEAR THE INSPECTION LABEL "U" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA, IEEE, AND NFPA.
8. ALL CONDUIT INSTALLED MAY BE SURFACE MOUNTED UNLESS OTHERWISE NOTED.
9. COMPLETE JOB SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF JOB ACCEPTANCE BY OWNER. ANY WORK, MATERIAL OR EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE CONTRACTOR.
10. ALL "CONDUIT ONLY" (C.O.) INSTALLATIONS SHALL HAVE A ¼" PULL WIRE OR ROPE.
11. CONTRACTOR SHALL PROVIDE AT&T MOBILITY PROJECT MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS, AND CIRCUITS.
12. ALL BROCHURES, OPERATING MANUALS, CATALOGS, SHOP DRAWINGS, ETC. SHALL BE TURNED OVER TO OWNER AT JOB COMPLETION.
13. POWER WIRE AND CABLE CONDUCTORS SHALL BE COPPER #12 AWG MINIMUM UNLESS SPECIFICALLY NOTED OTHERWISE ON DRAWINGS. CONDUCTORS #10 AWG AND SMALLER SHALL BE SOLID.
14. ALL CONDUCTORS LARGER THAN #10 AWG SHALL BE STRANDED COPPER WITH THWN 600V INSULATION, UNLESS NOTED OTHERWISE.
15. ALL MATING SURFACES OF GROUND CONNECTIONS SHALL BE CLEANED SMOOTH AND COATED WITH ANTIOXIDANT PRIOR TO ATTACHMENT.
16. ALL GROUND CONNECTIONS BELOW GRADE MUST BE EXOTHERMICALLY WELDED (CAD WELD OR APPROVED EQUAL)
17. ALL EXTERIOR GROUNDING CONDUCTORS SHALL BE # 2 AWG SOLID TINNED BARE COPPER WIRE UNLESS NOTED OTHERWISE.
18. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 A.I.C. COORDINATE SHORT CIRCUIT REQUIREMENTS WITH UTILITY COMPANY.
19. CONTRACTOR SHALL PATCH, REPAIR, AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.
20. IN DRILLING HOLES INTO CONCRETE WHETHER FOR FASTENING OR ANCHORING PURPOSES, OR PENETRATIONS THROUGH THE FLOOR FOR CONDUIT RUNS, PIPE RUNS, ETC., IT MUST BE CLEARLY UNDERSTOOD THAT TENDONS AND/OR REINFORCING STEEL WILL NOT BE DRILLED INTO, CUT OR DAMAGED UNDER ANY CIRCUMSTANCES.
21. LOCATION OF TENDONS AND/OR REINFORCING STEEL ARE NOT DEFINITELY KNOWN AND, THEREFORE, MUST BE SEARCHED FOR BY APPROPRIATE METHODS AND EQUIPMENT VIA X-RAY OR OTHER DEVICES THAT CAN ACCURATELY LOCATE THE REINFORCING AND/OR STEEL TENDONS.
22. PENETRATIONS IN FIRE RATED WALLS SHALL BE SEALED IN ACCORDANCE WITH ALL APPLICABLE CODES.
23. ALL MATERIALS SHALL BE U.L. LISTED.
24. CONDUIT:
    a. RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR. RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.
    b. ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL. FITTINGS SHALL BE GLAND RING COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS.
    c. FLEXIBLE METALLIC CONDUIT SHALL HAVE U.L. LISTED LABEL AND MAY BE USED WHERE PERMITTED BY CODE. FITTINGS SHALL BE "JAKE" OR "SQUEEZE" TYPE, SEAL TIGHT FLEXIBLE CONDUIT. ALL CONDUIT SHALL HAVE FULL SIZE GROUND WIRE.
    d. CONDUIT RUNS MAY BE SURFACE MOUNTED IN CEILINGS OR WALLS UNLESS INDICATED OTHERWISE. CONDUIT SHALL RUN PARALLEL OR AT RIGHT ANGLES TO CEILING, FLOOR OR BEAMS. VERIFY EXACT ROUTING OF ALL EXPOSED CONDUIT WITH ENGINEER PRIOR TO INSTALLING.
25. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS.
26. CONTRACTOR SHALL COORDINATE THE ELECTRICAL SERVICE WITH LANDLORD AND LOCAL UTILITY.
27. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY NEC AND ALL APPLICABLE CODES.
28. GROUNDING SYSTEM RESISTANCE SHALL NOT EXCEED 5 OHMS. IF THE RESISTANCE VALUE IS EXCEEDED, NOTIFY THE OWNER FOR FURTHER INSTRUCTION ON METHODS FOR REDUCING THE RESISTANCE VALUE. CONTRACTOR SHALL SUBMIT TO THE PROJECT MANAGER ALL TEST REPORTS AND ONE COMPLETE SET OF PRINTS SHOWING "INSTALLED WORK".
29. UPON COMPLETION OF WORK, CONDUCT CONTINUITY, AND FALL OF POTENTIAL GROUNDING TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.
30. ALL EXPOSED GROUND WIRES ROUTED ALONG THE SIDE OF EQUIPMENT SHELTERS OR ROUTED OVER CONCRETE FOUNDATIONS OR OTHER EXISTING STRUCTURES SHALL BE INSTALLED IN PROPERLY ANCHORED 3/4"ø (MIN.) PVC CONDUIT.
31. CONTRACTOR SHALL NOT DISTURB EXISTING GROUNDING SYSTEM. ANY DAMAGE SHALL BE REPAIRED IMMEDIATELY AT NO ADDITIONAL COST.
32. ALL ELEMENTS OF ICE BRIDGE AND AT&T MOBILITY UTILITY BACKBOARD MUST BE BONDED AND JUMPERED TO GROUNDED COMPONENTS OF THESE SYSTEMS.
33. ALL INTERIOR CABLES AND WIRING SHALL BE NEATLY ROUTED IN OVERHEAD LADDER RACK AND FASTENED TO LADDER RACK WITH PLASTIC CABLE TIES.
34. ALL GROUNDING CONDUCTORS SHALL BE ROUTED DOWNWARDS FROM POINT OF ORIGIN TO TERMINATION POINT (GROUND BAR, GROUND RING, ETC.
35. GROUNDING CONDUCTORS SHALL NOT REVERSE DIRECTION (EXCEPT HALO & BURIED GROUND RINGS). OTHER EXCEPTIONS NEED TO BE APPROVED BY AT&T MOBILITY CONSTRUCTION MANAGER PRIOR TO INSTALLATION.
36. GROUNDING CONDUCTORS SHALL HAVE A MINIMUM BENDING RADIUS OF 8".
37. ALL CONNECTIONS TO GROUND PLATES SHALL BE CAD WELDED TO THE CENTER OF THE PLATE. ALL DETAILS SHOWING CONNECTIONS TO GROUND RODS ARE ALSO VALID FOR SIMILAR CONNECTIONS TO GROUND PLATES.



ELECTRICAL RISER DIAGRAM & SERVICE ENTRANCES

SCALE: N.T.S. (1)

ELECTRICAL AND TELEPHONE GENERAL NOTES:

1. FOLLOWING COMPLETION OF WORK, PROVIDE OWNER WITH AS-BUILT DRAWINGS SHOWING TELEPHONE AND ELECTRIC LOCATIONS.
2. WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE, NEC 2008.
3. COORDINATE WITH UTILITY AND LOCAL ELECTRICAL INSPECTOR FOR FINAL POWER CONNECTION.
4. UTILITY WILL SUPPLY METER. COORDINATE WITH UTILITY FOR METER TYPE AND INTERCONNECTION.
5. ALL EXISTING UNDERGROUND LINES ON SITE TO BE LOCATED PRIOR TO CONSTRUCTION. CALL 1-888-DIG-SAFE PRIOR TO CONSTRUCTION.
6. SEAL ALL SERVICE ENTRANCES INTO SHELTER FOLLOWING INSTALLATION.
7. SEE PAGE E-2 FOR GENERAL GROUNDING NOTES.
8. COORDINATE WITH LOCAL TELEPHONE COMPANY FOR ALL ROUTING AND DESIGN.
9. CONTRACTOR TO VERIFY CONTROL WIRING SIZE WITH GENERATOR MANUFACTURER PRIOR TO CONSTRUCTION.

NOTE: POWER SUPPLY SUBJECT TO CHANGE. CONFIRM SUPPLY, ROUTING, AND DESIGN WITH UTILITY COMPANY, CM, & LL.

at&t Mobility
550 COCHITUATE ROAD
SUITES 13 & 14
FRAMINGHAM, MA 01701

CUSTOM HOUSE GARAGE
SITE NO.: ME2976

SAI communications
22 KEEWAYDIN DRIVE
SALEM, NH 03079

CONSTRUCTION DRAWINGS		
0	06/05/12	FOR CONSTRUCTION
A	04/06/11	FOR COMMENT

Dewberry®
Dewberry Engineers, Inc.
200 SUMMER STREET
10TH FLOOR
BOSTON, MA 02210
P: PHONE: 617.695.3100
F: FAX: 617.695.3310

BRADFORD A. MILLS No. 9062 LICENSED PROFESSIONAL ENGINEER
6/5/12

DRAWN BY:	JIM
REVIEWED BY:	DAS
CHECKED BY:	PPB
PROJECT NUMBER:	50003936
JOB NUMBER:	50041016
SITE ADDRESS	

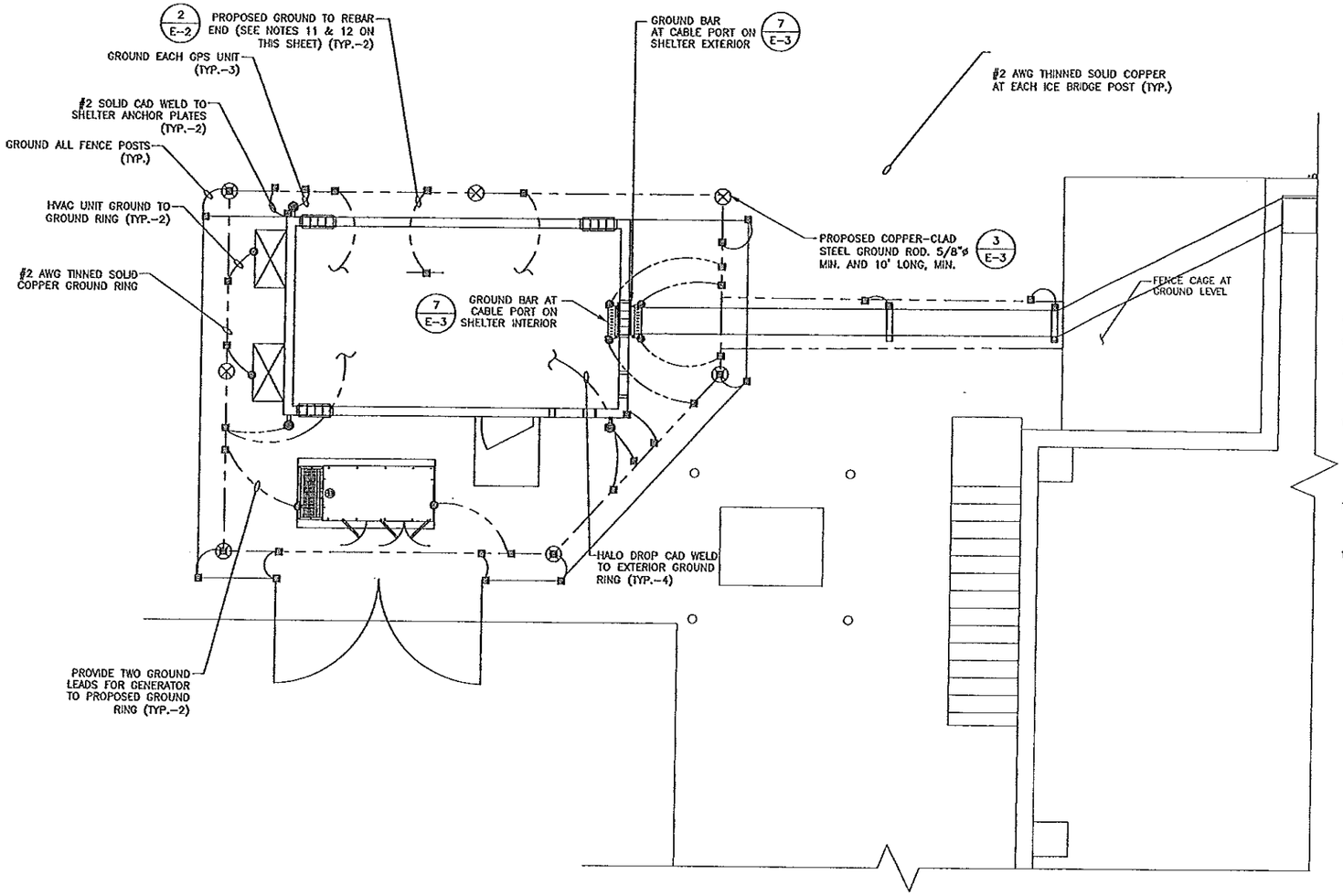
25 PEARL STREET
PORTLAND, ME 04101

SHEET TITLE

ELECTRICAL RISER DIAGRAM

SHEET NUMBER

E-1



NOTES:

1. GROUND UTILITY METER PER N.E.C.
2. CONTRACTOR TO VERIFY WITH AT&T MOBILITY C.M. FOR FINAL GROUND METHOD.

PARTIAL SCHEMATIC GROUNDING PLAN

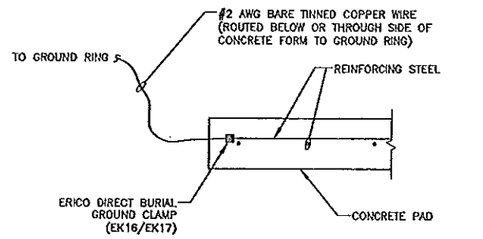
SCALE: N.T.S. — 1

GROUNDING LEGEND

	GROUND BAR
	GROUND COPPER WIRE, SIZE AS NOTED
	FUTURE GROUND RING (V.I.F.)
	MECHANICAL GROUND CONNECTION
⊗	5/8"X10' COPPER CLAD STEEL GROUND ROD
	EXOTHERMIC (CADWELL) CONNECTION

GROUNDING GENERAL NOTES

1. ALL DOWN CONDUCTORS AND GROUND THE RING CONDUCTOR SHALL BE #2 AWG, SOLID, BARE, TINNED COPPER, UNLESS OTHERWISE NOTED. ALL CONNECTIONS TO GROUND RING SHALL BE EXOTHERMICALLY WELDED. CONDUCTOR SHALL BE AT A MINIMUM DEPTH BELOW GRADE OF 18 INCHES OR TO LEDGE. MINIMUM BEND RADIUS SHALL BE 8 INCHES. CONDUCTOR SHALL BE AT LEAST 24 INCHES FROM ANY FOUNDATION, UNLESS OTHERWISE NOTED.
2. GROUND RODS SHALL BE 5/8" DIAMETER COPPER CLAD, HARGER, T&B, ERICO, OR EQUIVALENT. TOP OF ROD SHALL BE A MINIMUM OF 18" BELOW GRADE. IF LEDGE IS ENCOUNTERED, INSTALL GROUND ROD AT AN ANGLE. ELECTRICAL METER GROUND ROD EXCEPTED.
3. WHERE MECHANICAL CONNECTIONS ARE SPECIFIED, BOLTED, COMPRESSION-TYPE, CLAMPS OR SPLIT-BOLT TYPE CONNECTORS SHALL BE USED.
4. GRIND OFF GALVANIZING IN AFFECTED AREA. EXOTHERMICALLY WELD #2 CONDUCTOR AT 6" ABOVE GRADE OR FOUNDATION, WHICHEVER IS HIGHER. COLD-GALV AFTER. EXOTHERMICALLY WELD OTHER END TO GROUND RING.
5. INSTALL GROUNDING KITS AT ANTENNA CENTERLINE, AND TOWER EXIT POINTS. GROUND COAX LINES. EXOTHERMICALLY WELD #2 DOWN CONDUCTOR TO PLATES, RUN DOWN TOWER, AND TIE INTO GROUNDING SYSTEM.
6. ALL GROUNDING WORK SHALL COMPLY WITH AT&T CONSTRUCTION CONTRACT STANDARDS. FOLLOWING COMPLETION OF WORK, GROUND SYSTEM MUST BE TESTED AND SHALL HAVE A RESISTANCE OF 5 OHMS OR LESS SUBMIT AN INDEPENDENT "FALL POTENTIAL" TESTING REPORT.
7. ALL GROUNDING CONDUCTORS ON EXTERIOR WALL OF SHELTER SHALL BE INSTALLED IN 3/4" SCH 40 PVC CONDUIT TO 12" BELOW GRADE. ATTACH PVC WITH GALVANIZED "C" CLAMPS.
8. CONTRACTOR SHALL HAND-DIG IN AREAS AROUND EXISTING UTILITIES.
9. NOTIFY CONSTRUCTION ENGINEER IF THERE ARE ANY DIFFICULTIES INSTALLING GROUNDING SYSTEM DUE TO SITE SOIL CONDITIONS.
10. GROUNDING RING IS SHOWN AS SCHEMATIC ONLY. IT IS DESIGNED WITHOUT BENEFIT OF RESISTIVITY TESTING AND DOES NOT NECESSARILY REPRESENT A GROUNDING SYSTEM TO MEET ANY SPECIFIC GROUND RESISTANCE.
11. PRIOR TO POURING CONCRETE, ALL REBAR LOCATED NEAR THE BOTTOM OF THE FOUNDATION SHALL BE BONDED TOGETHER TO FORM A SINGLE GROUNDING ELECTRODE, BY STEEL TIES OF OTHER EFFECTIVE MEANS APPROVED BY NEC 2005 AND STRUCTURAL ENGINEER, AND BONDED TO THE GROUND RING AS DETAILED IN THESE PLANS. (INSPECTION MAY BE REQUIRED PRIOR TO POURING CONCRETE AND MUST BE COORDINATED BY CONTRACTOR.)
12. IN ACCORDANCE WITH NEC 2008 REQUIREMENTS, ALL GROUNDING ELECTRODES PRESENT ON SITE SHALL BE BONDED TOGETHER (REFERENCE 2008 NEC ARTICLE 250.50).
13. CAULK AND SEAL ALL NON-FACTORY SHELTER PENETRATIONS.



REBAR GROUNDING DETAIL

SCALE: N.T.S. — 2

at&t Mobility
550 COCHITUATE ROAD
SUITES 13 & 14
FRAMINGHAM, MA 01701

CUSTOM HOUSE GARAGE
SITE NO.: ME2976

SAI communications
22 KEEWAYDIN DRIVE
SALEM, NH 03079

CONSTRUCTION DRAWINGS		
0	06/05/12	FOR CONSTRUCTION
A	04/06/11	FOR COMMENT

Dewberry®
Dewberry Engineers, Inc.
220 SUMMER STREET
BOSTON, MA 02210
PHONE 617.856.0400
FAX 617.856.2410

BRADFORD A. MILLS No. 5052 LICENSED PROFESSIONAL ENGINEER
6.5.12

DRAWN BY:	JIM
REVIEWED BY:	DAS
CHECKED BY:	PPB
PROJECT NUMBER:	50003936
JOB NUMBER:	50041016

SITE ADDRESS

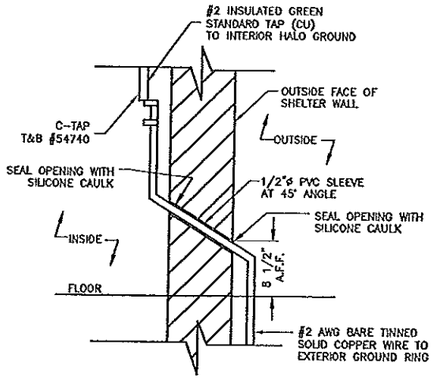
25 PEARL STREET
PORTLAND, ME 04101

SHEET TITLE

SCHEMATIC GROUNDING PLAN

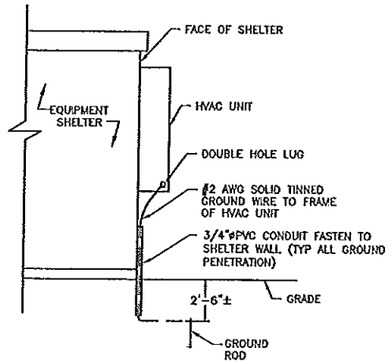
SHEET NUMBER

E-2



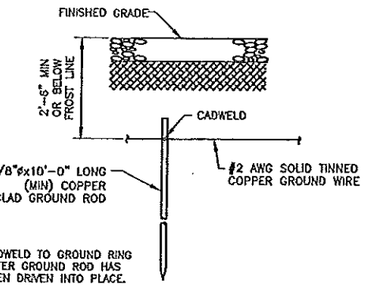
WALL GROUND PENETRATION 1

SCALE: N.T.S.



HVAC UNIT GROUND 2

SCALE: N.T.S.

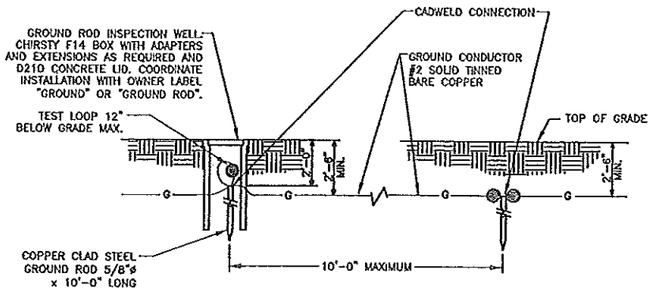


NOTES:

1. CADWELD TO GROUND RING AFTER GROUND ROD HAS BEEN DRIVEN INTO PLACE.
2. FROST LINE TO BE VERIFIED.

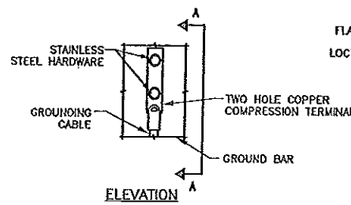
GROUND ROD 3

SCALE: N.T.S.

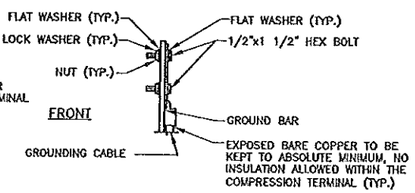


GROUND BOX DETAIL 4

SCALE: N.T.S.



ELEVATION



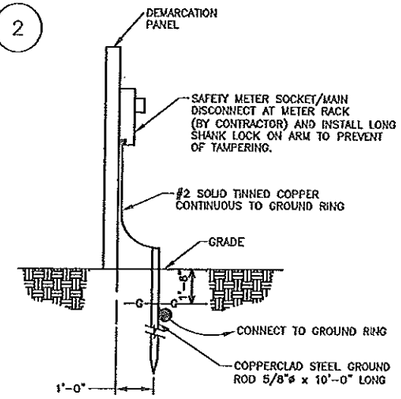
SECTION 'A-A'

NOTES:

1. DOUBLING UP OR STACKING OF CONNECTIONS IS NOT PERMITTED
2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.

TYPICAL GROUND BAR MECHANICAL CONNECTION DETAIL 5

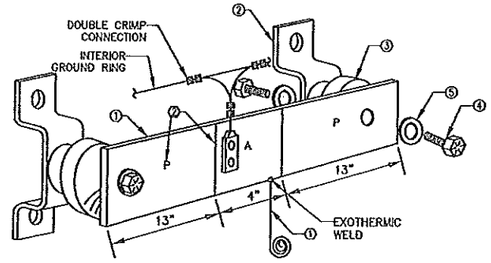
SCALE: N.T.S.



METER SOCKET GROUNDING 6

SCALE: N.T.S.

NEWTON INSTRUMENT COMPANY, INC. BUTNER, N.C. OR APPROVED EQUAL			
NO.	REQ.	PART NO.	DESCRIPTION
①	1	1/4"x4"x30"	SOLID GND. BAR
②	2	A-6056	WALL MTG. BRKT.
③	2	3061-4	INSULATORS
④	4	3012-1	5/8"-11x1" H.H.C.S.
⑤	4	3015-8	5/8 LOCKWASHER



EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

SECTION "P" - SURGE PROTECTORS

CABLE ENTRY PORTS (HATCH PLATES) (2 AWG)
GENERATOR FRAMEWORK (IF AVAILABLE) (2 AWG)
TELCO GROUND BAR (2 AWG)
COMMERCIAL POWER COMMON NEUTRAL/GROUND BOND (2 AWG)
+24V POWER SUPPLY RETURN BAR (2 AWG)
-48V POWER SUPPLY RETURN BAR (2 AWG)
RECTIFIER FRAMES.
COAX SUPPRESSION

SECTION "A" - SURGE ABSORBERS

INTERIOR GROUND RING (2 AWG)
EXTERNAL EARTH GROUND FIELD (BURIED GROUND RING) (2 AWG)
METALLIC COLD WATER PIPE (IF AVAILABLE) (2 AWG)
BUILDING STEEL (IF AVAILABLE) (2 AWG)

SECTION "I" - ISOLATED GROUND ZONE

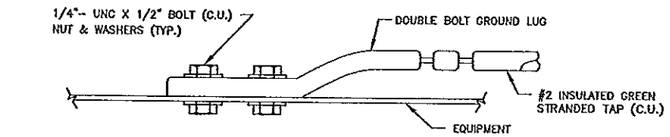
ALL COMMUNICATIONS EQUIPMENT FRAMES.
ISOLATED GROUND BAR - IGB (2 AWG)

DETAIL NOTES:

1. EXOTHERMICALLY WELD 2 AWG BARE TINNED SOLID COPPER CONDUCTOR TO GROUND BAR. ROUTE CONDUCTOR TO BURIED GROUND RING AND PROVIDE PARALLEL EXOTHERMIC WELD.
2. USE PERMANENT MARKER TO DRAW THE LINES BETWEEN EACH SECTION AND LABEL EACH SECTION ("P", "A", "I") WITH 1" HIGH LETTERS.

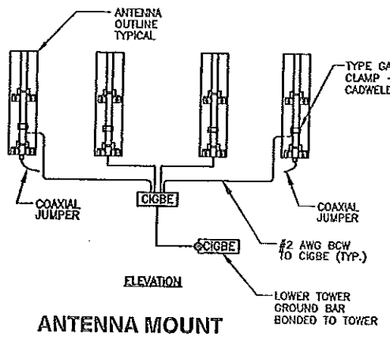
GROUND BAR PLATE (TYP.) 7

SCALE: N.T.S.



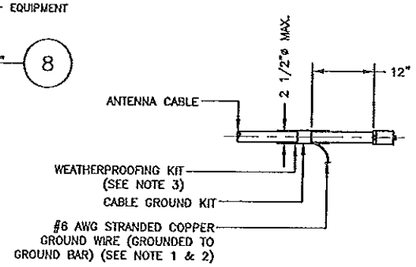
CONNECTION TO EQUIPMENT DETAIL 8

SCALE: N.T.S.



ANTENNA MOUNT GROUNDING DETAIL 9

SCALE: N.T.S.

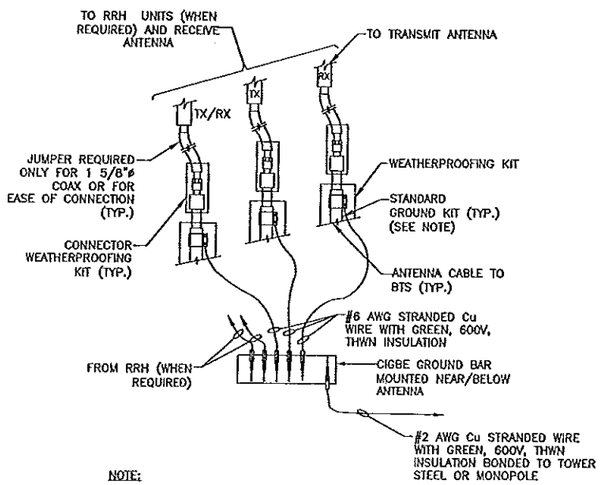


NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE ANDREW SUREGROUND TYPE KIT WITH TWO-HOLE LUG.
3. WEATHER PROOFING SHALL BE ANDREW TWO-PART TAPE SUPPLIED WITH KIT. COLD SHRINK SHALL NOT BE USED.

CONNECTION OF CABLE GROUND KIT TO ANTENNA CABLE DETAIL 10

SCALE: N.T.S.



NOTE:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO CIGBE.

CONNECTION OF GROUND WIRE TO GROUNDING BAR DETAIL 11

SCALE: N.T.S.

at&t Mobility
550 COCHITUATE ROAD
SUITES 13 & 14
FRAMINGHAM, MA 01701

CUSTOM HOUSE GARAGE
SITE NO.: ME2976

SAI communications
22 KEEWAYDIN DRIVE
SALEM, NH 03079

CONSTRUCTION DRAWINGS		
0	06/05/12	FOR CONSTRUCTION
A	04/06/11	FOR COMMENT

Dewberry
Dewberry Engineers, Inc.
280 SUMMER STREET
10TH FLOOR
BOSTON, MA 02210
PHONE: 617.695.5400
FAX: 617.695.5310

BRADFORD A. WILLS No. 5052 REGISTERED PROFESSIONAL ENGINEER
6/5/12

DRAWN BY:	JIM
REVIEWED BY:	DAS
CHECKED BY:	PPB
PROJECT NUMBER:	50003936
JOB NUMBER:	50041016
SITE ADDRESS	

25 PEARL STREET
PORTLAND, ME 04101

SHEET TITLE

GROUNDING DETAILS

SHEET NUMBER

E-3